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THE ARCHITECT

JANUARY 5, 1923

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The New Year.

The New Year finds us still in a position of financial and industrial troubles, but brings with it indications that the nation is gradually feeling its way to a more satisfactory and stable condition.

On the whole the attitude of Labour is becoming more reasonable, a conclusion which is evident to those who look beyond the speeches of Labour leaders to the acts of the workers themselves.

In the building trade the output, which fell so seriously in the years after the Armistice, has been increased and bettered, with the result that the price of building has materially fallen and that we are close to, if we have not reached, stabilised prices.

Those whom circumstances forced to build immediately after the war have been heavily penalised, a result for which architects are in no way responsible, since none of us had the prophetic insight and could judge when the prices then current would be reduced.

Contractors have during the last year had a bad time, for those who were wanting work for themselves and their employees have in many cases only secured it by cutting their profits; and if we could obtain a full return it would probably be found that a larger proportional amount of work had been carried out at cost price than in any previous corresponding period. This is an element in the situation which cannot be regarded as satisfactory to those who are interested in building, convenient as it may be to those who have been paying for building work. What is wanted is the reduction in price which is the immediate outcome of an improved production and good management by those who supply the contractor with the goods he uses.

We watch with the greatest sympathy and interest the experiment of the Guild of Builders, as we do not believe its success can have other than a steadying effect on the whole industry. If the worker finds that by his own efforts and industry he can enable the Guild to carry out work satisfactorily at a lower cost than the usual he will both make the Guild's position an assured one and will at the same time show Labour that many of the evils of which it complains are resolvable by individual effort and resource, and are not subjects which require the doubtful aid of political action. Then, too, if the contractor finds that the Guild's system of payment for wet time and sickness is compatible with cheap production, he will probably in time follow the Guild's example, and the position of the building industry as a whole may be strengthened. We have never believed that, as a whole, contractors have been greedy in their endeavours to secure an undue proportion of profit; but, here again, it is to the good that their system should receive the practical check of comparison with another system worked on varied lines. If the workman is only disposed to give a fair *quantum meruit* when he is working directly for an association of his colleagues, the worker has not been treating his employer fairly; if, on the other hand, he is willing to do a little more than he could be justly called on to do because he is working for an association of his fellows, his position is quite understandable, and certain results are bound to follow providing his Guild prove capable of the art of management and direction and know when and where to buy with advantage.

But we believe that contractors as a whole have been useful and efficient servants of the public, and that they need not fear, but should rather welcome, the stimulus of a little competition on new lines, and that there is room in a great industry for both.

Public schemes of the first importance have been few in number, but it is gratifying to us that the reconstruction of the Bank of England has been placed in Mr. Baker's very able hands. The completion of the Port of London Building adds another to the list of great London buildings, and one which is in every way worthy of being the centre of the great Authority's administration. We are glad to be able to announce the distinction conferred on an architect who has well merited it by his achievement.

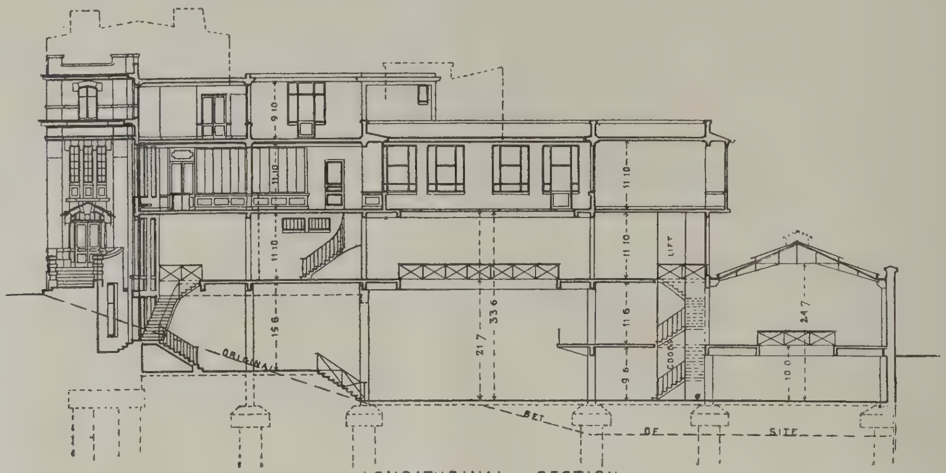
With the recent change of Government we may be said to have reached the end of the post-war phase of housing. As long as a Coalitionist *régime* was in power it was difficult for the authorities to admit that State-aided housing had proved an entire fiasco. We always felt that those then in power might *reculer pour mieux sauter*, and that some varied form of the original scheme might be decided upon at any time. By the return of a political party independent of others, a new position has come about, with the result that housing is now relegated to the sphere of private enterprise, a position which should never have been interfered with and which, after all has been said, is the only possible solution of the question. We are sorry that equal insistence has not been made on the repeal of the Restriction of Rent Act, but that may, it is hoped, yet come about.

It is natural that in an age like the present most building activity should take the direction of the provision of business premises of a utilitarian nature rather than that of municipal buildings or large houses. Our issues during the last year have shown many of the large schemes now in progress or nearing completion in all parts of London, especially the City, which may be said without much exaggeration to be in process of reconstruction, reconstruction which is often hampered by the incidence of that anomaly the Law of Ancient Lights, of which the architectural profession should use its utmost effort to secure the repeal. We should like to see every bar to the orderly development of our towns eliminated, and the development of every property freed from hampering restrictions, subject to the ordinary building regulations which secure proper regard for hygienic needs and light and air. We entirely endorse the opposition which the R.I.B.A. offered to the proposal to bring about an amendment to the regulations affecting the heights of buildings, as we are convinced that the widths of our streets are not such as would make an increased standard of building heights either necessary or desirable. In a very small number of cases such higher buildings might be architecturally excellent and reasonable, but such cases are few and far between and would in our opinion not justify a general departure from the standards now obtaining.

Our Illustrations.

PALAZZO DELL' UNIVERSITA AND PALAZZO SERRA, GENOA. Measured and Drawn by P. D. Hepworth, Architect.

MECCANO FACTORY, PARIS. Mr. Arthur Vye-Parminter, Architect.



LONGITUDINAL SECTION

These premises, now being completed on a site of about 9,000 feet surface, purchased by Messrs. Meccano, Ltd., of Liverpool, in the Belleville quarter of Paris for the construction of an important building for their Paris branch, are being installed for their goods and office departments, model showrooms and repairing and adjusting workshops.

The architect is Mr. Vye-Parminter, an Englishman long established in Paris.

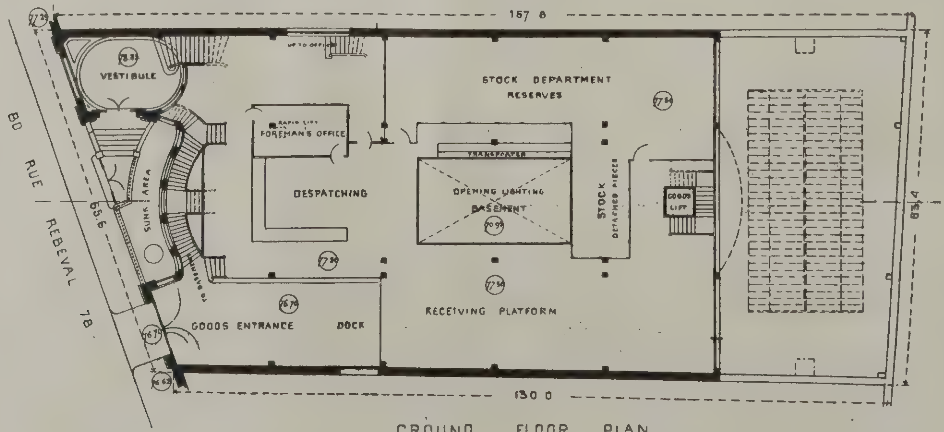
The floor surface, including the flat roofs specially reinforced for the eventual construction of further floors for offices and workshops, totals about 32,500 feet. The building consists of a fine basement occupying the whole of the site, 21 feet high in the centre portion, and, although about 20 feet below pavement level, it is perfectly lighted in every portion. A half-basement of about 3,200 feet surface, lighted by a glazed steel roof, is destined for the mounting and adjusting of Meccano models, repairing shop, etc., and is provided with electric power for machine tools. The ground floor, of about 6,200 feet surface, well lighted from front and back and by the glass-paved court above, is approached by the goods entrance on the right of the façade forming a dock, and is utilised for the receiving of goods and the packing of light goods and their despatch. The unpacked stock, the reserves and the small detached pieces are compiled in spaces separated from the rest of this floor by steel wire-worked partitions. The iron stairs on the front and that around the goods lift afford ample communication between this floor and the half-basement and basement. The electric goods-lift provides the easy handling of heavy packing cases from the ground floor to the two lower levels. Separate lavatories for male and female employees working in this portion of the building are provided in the half-floor under the entrance vestibule and over the coal cellar, well lighted from the street front.

As the kind of goods handled in these lower floors is that of the small and delicate nature of the Meccano manufacture for mechanical toys, detached pieces for the mounting of their many types of constructional models, it was essential that the daylight lighting should be as perfect as possible. The architect has contrived by his arrangement of plan to afford very ample lighting in every portion of the building, and very little artificial lighting will be required except in dull winter weather.

The first floor is approached from the street through a large vestibule some seven steps above pavement level, with wide stairs leading to the lobby on the first floor commanding access to the main offices. On the street front are the fine main offices, the manager's office and adjoining office for his secretary. On the three sides of the central court are the various large offices for the advertising and filing departments, a fine room for the exhibition of models working by clockwork or electrically, and a showroom for the mounted models of Meccano manufacture; separate well-lighted lavatories for the male and female employees. The large central court has been arranged by means of flower boxes and shrubs to form a garden court, producing a very pleasing outlook from the surrounding offices, and affording an agreeable few minutes' reading place for the employees, their lunch finished. The windows around this court are of iron of the "guillotine" or sash form, whilst those of the main offices on the street front are of iron opening vertically on centre pivots, and are glazed with cathedral glass in $\frac{3}{4}$-inch leads, both quite a new feature in Paris.

The second floor is reached by the continuation of the principal staircase, and comprises a large refectory for the employees of the office floor, kitchen and *appartement* for the caretaker. These rooms give on to a large flat roof, which, overlooking the centre of Paris from the high level of some 200 feet, forms a pleasant walking place. The flat roofs have been constructed with special reinforcement in view of the eventual heightening of the building.

The floors are constructed of terra-cotta slabs, 12 inches by 8 inches, reinforced by steel wiring in both directions tied to the reinforcing of the ferro-concrete beams and of the ferro-concrete pillars rising from the foundations. The average span is about 20 feet and the finished floors are 7 inches thick. The basement is paved with asphalte paving blocks, the half-basement is surfaced with patent jointless flooring of the magnesia type, the ground floor surfaced partly with asphalte blocks and partly with hygienic jointless flooring, the offices being surfaced throughout with jointless flooring, with the exception of the manager's office, parqueted in oak, and the tiled lavatories. The vestibule floor is of fine mosaic, and all the stairs are of iron framing with iron risers and oak treads. All the joinery



GROUND FLOOR PLAN

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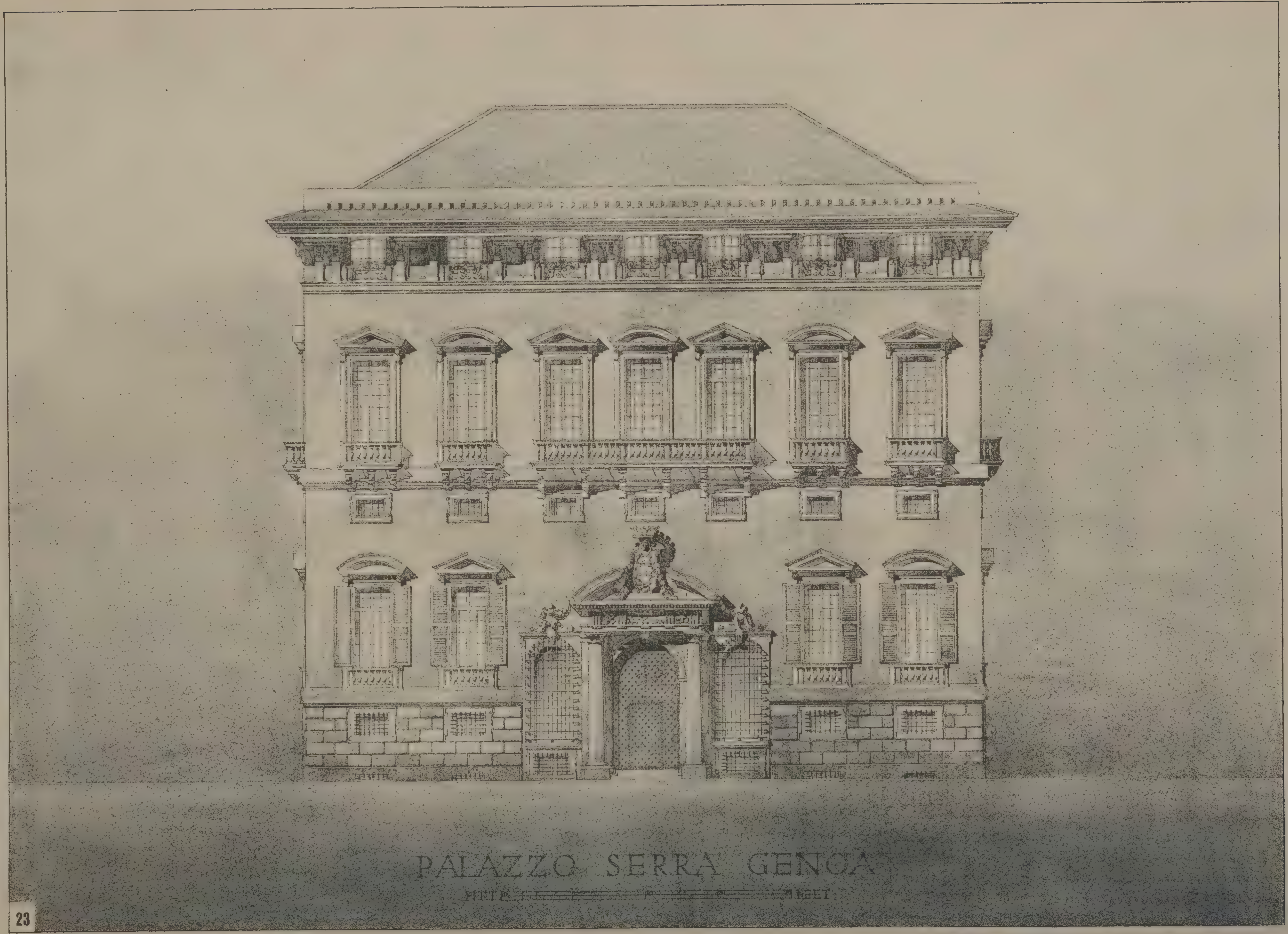

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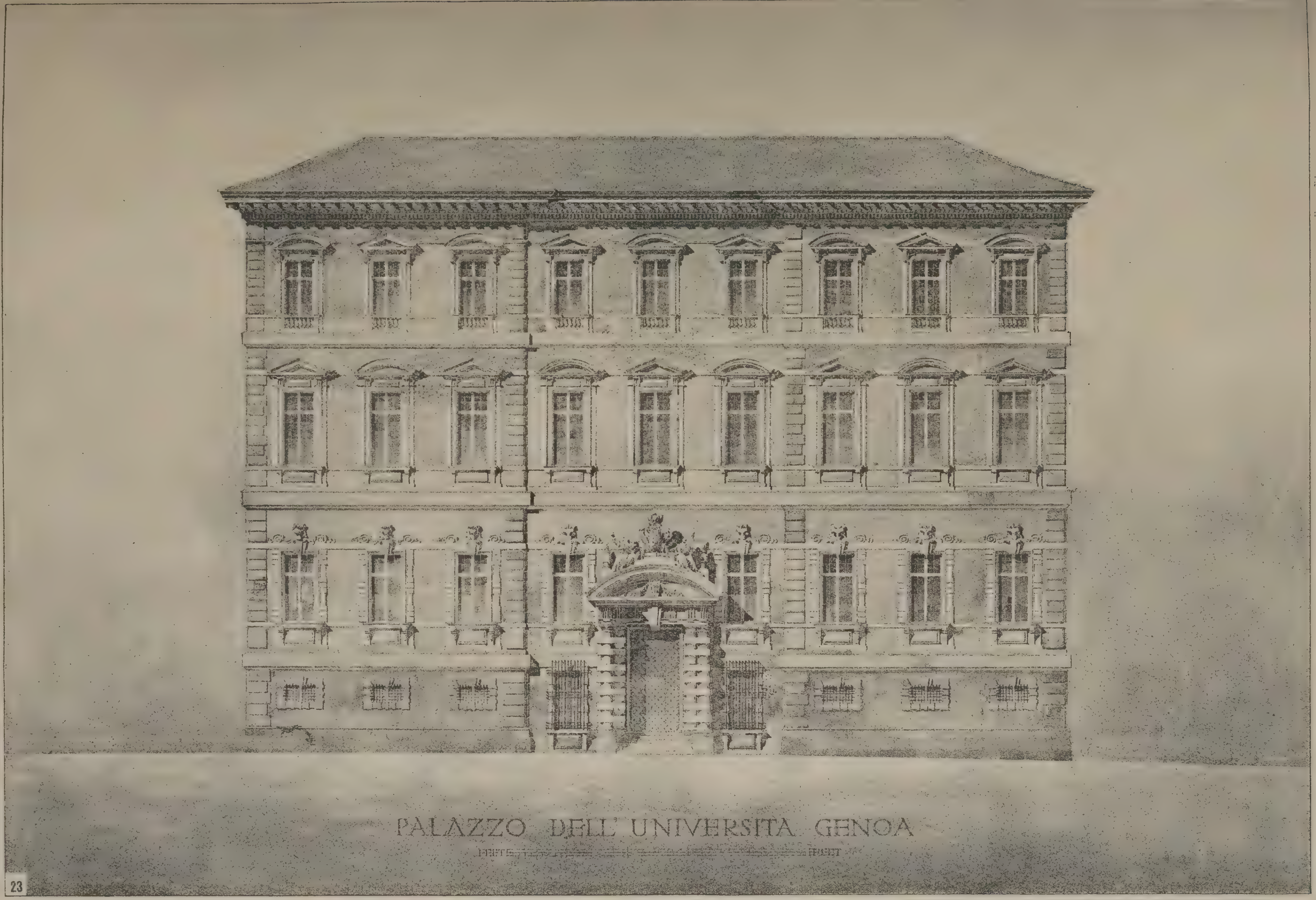
PALAZZO SERRA, GENOA.

Measured and Drawn by P. D. HEPWORTH, Architect.



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PALAZZO DELL UNIVERSITA, GENOA.

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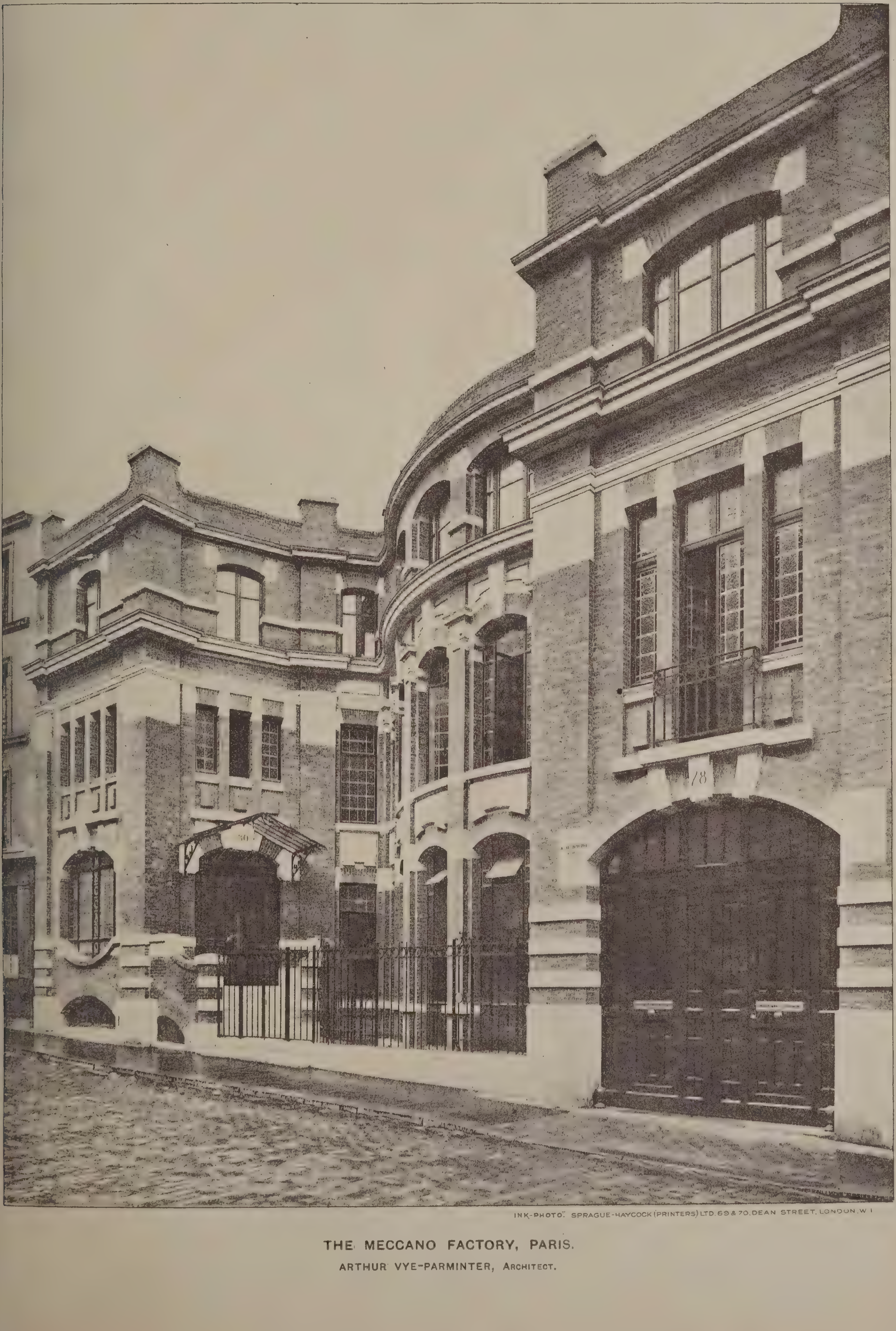

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THE MECCANO FACTORY, PARIS.

ARTHUR VYE-PARMINTER, Architect.

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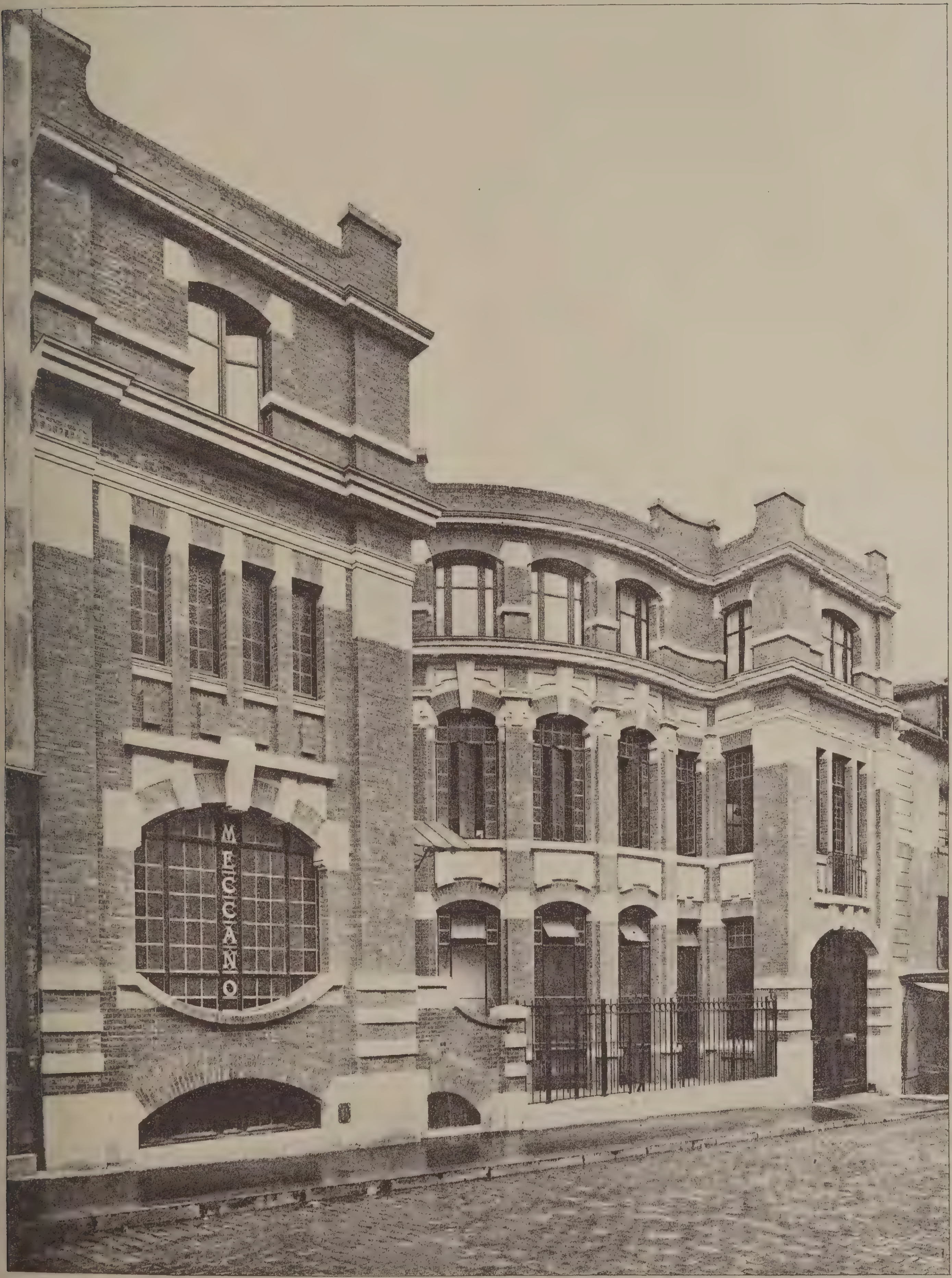

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THE MECCANO FACTORY, PARIS.

ARTHUR VYE-PARMINTER, Architect.

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RESIDENTIAL FLATS·REG

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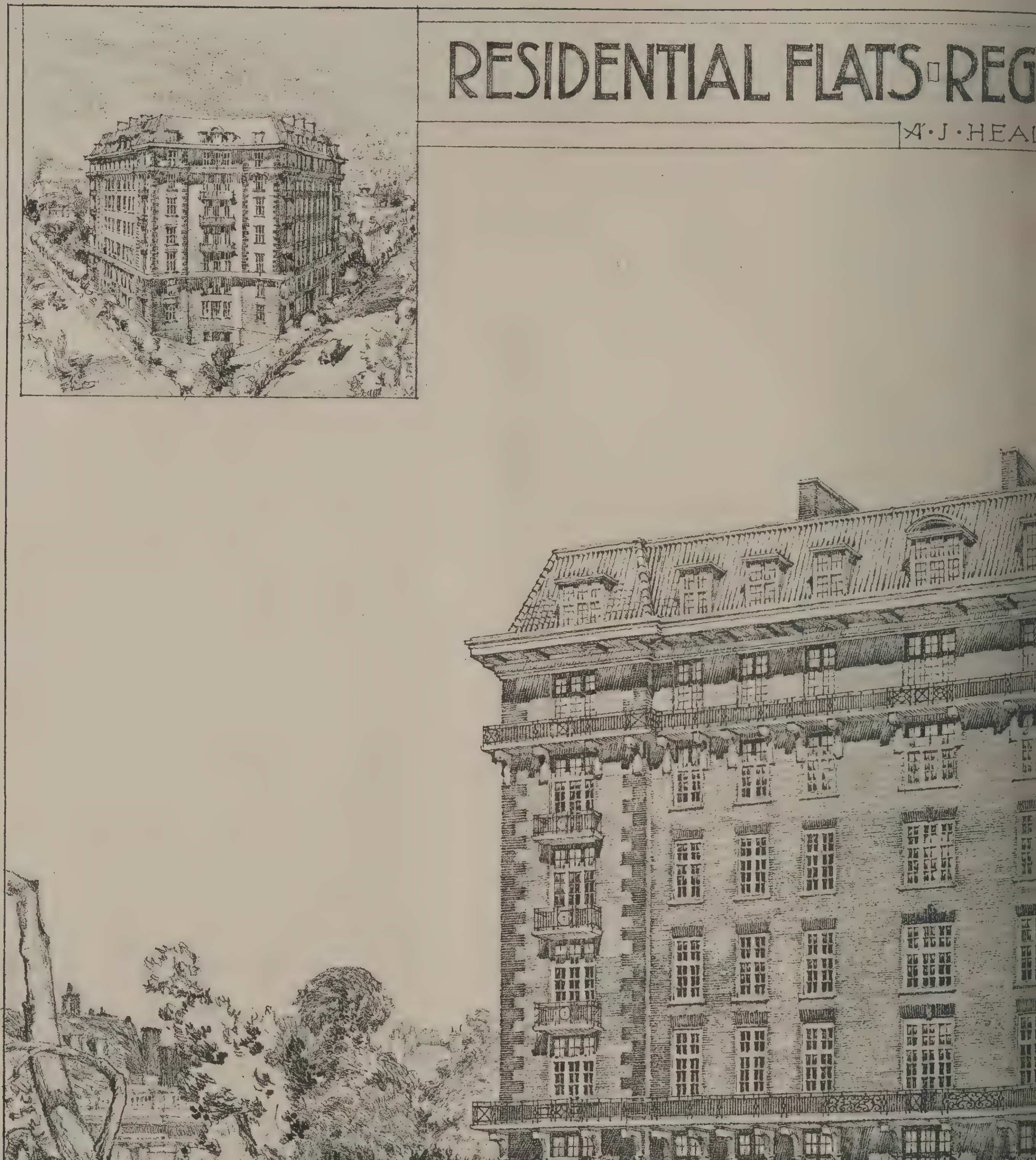
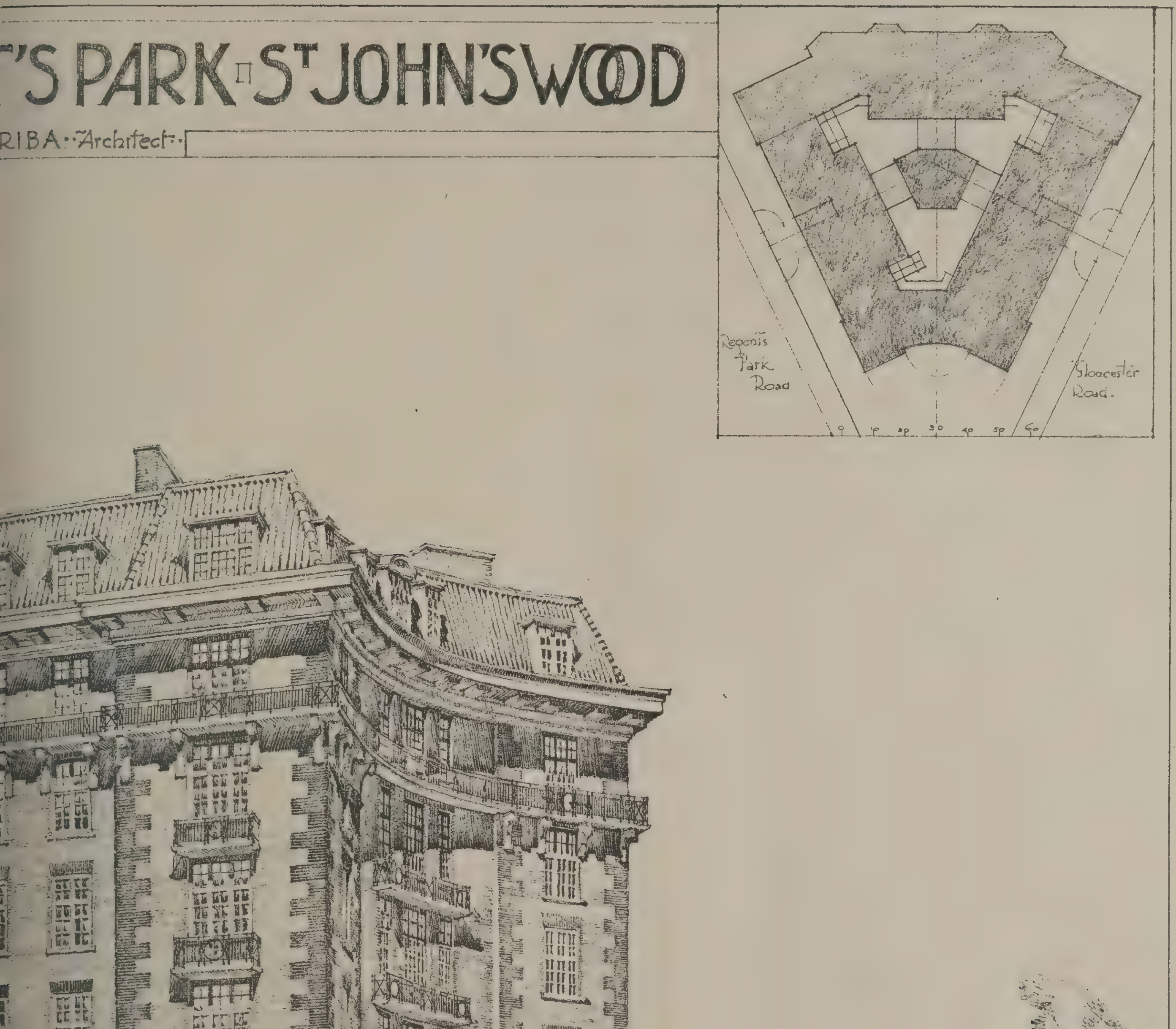

J Frank Green del.

'S PARK · ST JOHN'S WOOD

RIBA · Architect ·



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is of polished oak. The roof flats, of a surface of about 5,900 feet, are finished with fine gravel in light cement mortar, over a surfacing of "volcanic cement" somewhat similar to the "vulcanite" system.

The subsoil in this quarter being of an uncertain nature, largely composed of made-up soil filling in the old gypsum quarries and workings with which this quarter of Paris is honeycombed, the foundations for a building destined to carry heavy compact loads on its lower floors required careful study, the more so when it was found after trial borings that the natural soil, and that of no special quality, was met with at depths varying from 25 to 35 feet. The natural soil being calculated as to its safety bearing powers, it was decided to form the foundations of circular concrete piers averaging 4 feet diameter to the various depths, topped by square mushroom heads of ferro-concrete, tied by their reinforcement to the piers and to the ferro-concrete rising pillars. There are 30 of these piers and heads. As in the case of foundations in nearly every quarter of Paris honeycombed with gypsum quarries filled in during later years, old workings and the ancient catacombs, it was expected that some extras would have to be expended on foundations, but such extras are well compensated for by the natural set of the site, which permitted the construction of deep and well-lighted basements with very small expenditure for excavation. The walls of the adjoining buildings being considered of little value as party walls for building on, the architect decided to construct the side walls of the building on own ground and of half the usual thickness supported by the ferro-concrete pillars against the side walls. The Rue Rebeval, much used by heavy lorry traffic, being at a level of some 11 feet above the sunk area, required at this portion some careful piecemeal work of ferro-concrete buttressing preliminary to the main work of construction.

The façade on the Rue Rebeval is simple, and, being composed of red brick relieved by stone dressings, produces a very pleasing effect, and the curved set-back attracts attention by its originality. The street frontage being on a skew with the site by about 23 feet, and with a gradient of about 28 inches in its length, the architect profited by these apparent defects to increase the lighting development of his front by throwing the central portion of the façade back into line with the site, thus forming a sunk area or "cour anglaise," affording more light to the basement, and increasing the useful lighting surface from the frontage of 66 feet to about 86 feet, adding also to the attractiveness of the façade; and later on, the street not being wide, allowing, according to the regulations for heights of buildings in Paris, the possibility of the addition of two square floors and roof floor over the central portion.

The general contractor is Mr. Dior, a well-known Parisian contractor, all the sub-contractors being among the best of Paris firms. The lift was supplied by the Lamson Store Service Co., Ltd.

PROPOSED FLATS, REGENT'S PARK, LONDON, N.W.

A. J. Healey, F.R.I.B.A., Architect.

The site acquired for the erection of this proposed block of service flats is an excellent one, most conveniently situated on the north side of Regent's Park and close to the Zoological Gardens. It occupies a prominent position at the junction of two wide thoroughfares—viz., Regent's Park Road and Gloucester Road; this has enabled an economical plan to be devised by which all habitable rooms have good outlooks and none are lighted from internal courts.

Two semi-basement houses are on the site; full use has been made of them for the kitchens, etc., of the proposed flats, so that practically no further excavation is needed.

The buildings will be of fire-resisting construction on the latest principles and faced with brick. Its proportions have admitted of a simple and attractive treatment, reducing structural and decorative work from a maintenance point of view to a minimum.

There will be 46 flats available for letting, manager's flat and office, public restaurant and kitchens, etc.

The flats are arranged six on each floor and are all served by one lift and staircase. The flats are of three types, and, in addition to the principal accommodation, there will be in each flat a small kitchenette and bathroom, etc., and in both these apartments the walls will be tiled and jointless flooring laid.

Type A.—Sitting room and two other rooms.

Type B.—Two reception rooms and two other superior rooms.

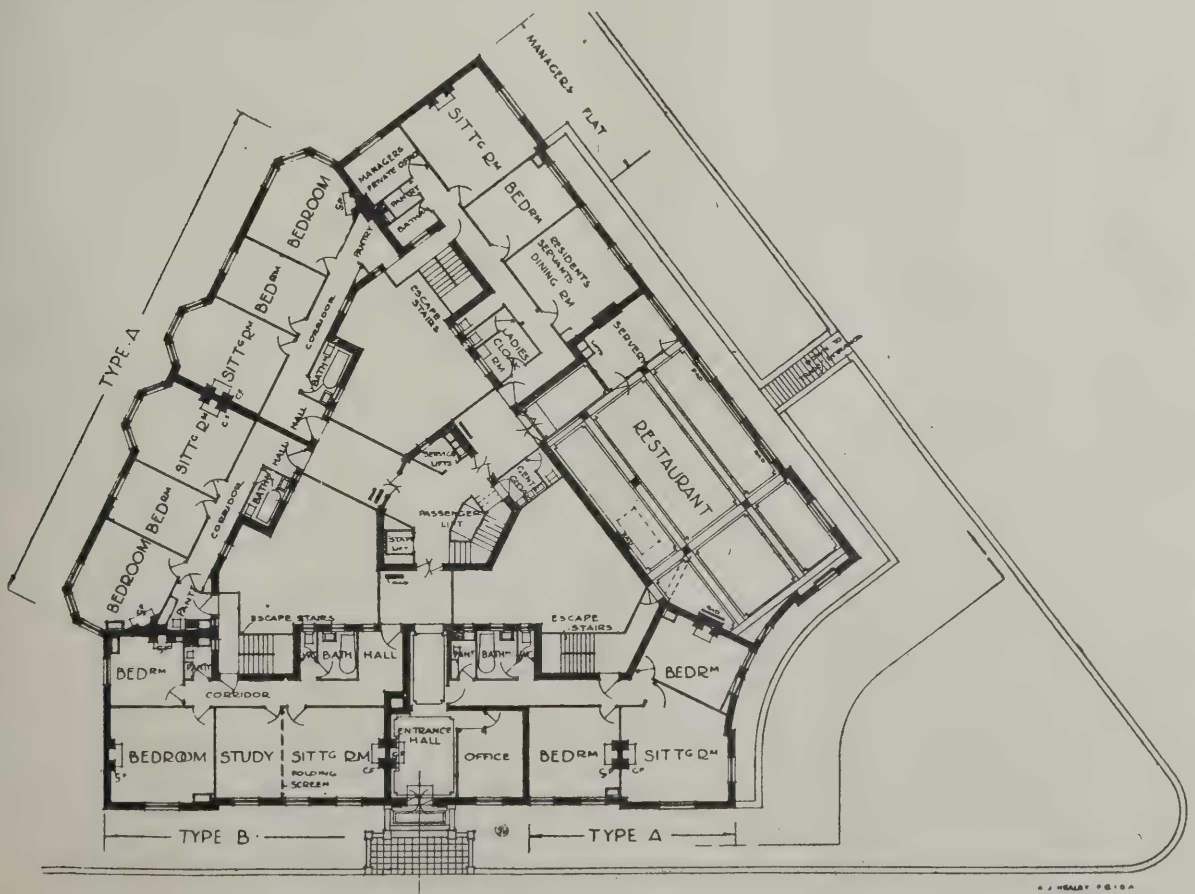
Type C.—Two reception rooms and three other good rooms.

In the two larger types of flat two reception rooms are provided, capable of being thrown together into one large room.

These flats, if fully occupied, would hold 152 people.

Coal fires will be provided for in the sitting room, unless otherwise arranged, as being generally the most popular, but gas or electric fires in all other rooms.

Constant hot water is to be provided throughout, a lavatory basin being arranged in every bedroom. There will be connections for vacuum cleaners.



GROUND FLOOR PLAN

A restaurant equipped for high-class cuisine forms part of the premises and is situated on the ground floor, and will be a pleasant and cheerful apartment, not tucked away in a gloomy basement, as is often the case. It will be of sufficient size to meet all calls upon it. The kitchen plans have been submitted to a leading hotel proprietor and received his approval. Electric service lifts are provided for meals required to be served in flats.

The rents of the flats have been calculated on a very conservative basis and range from £225 to £350 per annum. The figures given include rates and the provision of constant hot water.

The charges for service are based on the number of rooms per flat, and range from £50 to £75 a year.

The estimated cost of the building is £85,577 9s.

Notes and Comments.

St. Margaret, Lothbury.

Another historic monument in London is in danger. The church of St. Margaret, Lothbury, has been pronounced to be unsafe by Mr. Mervyn Macartney, the surveyor of St. Paul's Cathedral. The roof, the tower and the foundations are condemned by this expert, and the verdict has led the Bishop of Stepney to make an urgent appeal to the City to subscribe the funds necessary to undertake the work of repair. It is estimated that at least £6,000 will be required. St. Margaret, Lothbury, has been fortunate in being in the charge of an incumbent who has carefully and reverently attended to its upkeep, and has appreciation of the church and the period to which it belongs. It is in this sense in striking contrast to others of Wren's churches, the incumbents of which show by their acts that they have no knowledge or affection for a period of our historic art. We hope the money needed will be forthcoming, as St. Margaret's is an oasis in the desert when compared with St. Michael, Cornhill, St. Margaret Pattens, and other of Wren's churches, the effect of which is spoiled by injudicious ornament and want of care.

Shorter Lives for Buildings.

An interesting but unpleasant topic has been raised in the press—that of the duration of buildings and the need for that duration. We must admit that as buildings of any size and importance are now built there is no reason why they should not be practically intact in 500 or 600 years' time, and yet by that time they will in many cases have become largely useless because of changes in the wants of our daily life and changes in methods of administration and systems of government. Schools and hospitals at once suggest themselves to us as such buildings, while aggregations of housing in special localities near industries are another. There would be much to be said for the provision of certain spaces in all large towns where slighter and more temporary building midway between what we term temporary and permanent buildings could be erected under special regulations. We say the subject is an unpleasant one, as what we all like is to think that our buildings will become permanent landmarks and will not fall into desuetude or decay.

The Wren Celebration.

The grand committee organising the Christopher Wren Bicentenary Celebration, to take place next February, has arranged for the publication by Messrs. Hodder & Stoughton of an illustrated memorial volume dealing with the career and achievements of the greatest of British architects. This volume will be edited by Mr. Rudolf Dircks, Librarian of the Royal Institute of British Architects, and will contain chapters contributed by eminent architects and others.

The profits arising from the sale of the book will be handed over to the fund which is now being raised by the Dean and Chapter of St. Paul's for the preservation of the Cathedral. Only a limited number of copies will be printed, and it is hoped that these will be purchased mainly by learned societies and other bodies in whose libraries such a volume would properly find a place. We hope that the publication will meet with the success hoped for. It is always exceedingly difficult to arrange a book of which the various sections are contributed by different authors, but we are glad the book is in the very able hands of Mr. Dircks.

The "Daily Mail" Competition.

The three successful competitors in the "Daily Mail" Labour-saving Bungalow Competition have all adopted an E-shaped plan with projecting wings on the entrance side. As far as the arrangements adopted are concerned, no adverse criticism can be expressed, as the bungalow would be easy and convenient to work. The design placed second is in many respects quite equal to the winning design, and in one the position allotted to the bathroom in relation to the bedrooms is preferable. The design placed third has distinct points, but we assume that the fact that the dining-room and kitchen are divided by a corridor has militated against it; but we believe too much importance has been placed in the immediate juxtaposition of kitchen and dining-room, and that serving hatches are not as workable or convenient in practice as in theory. Of these designs the second is most pleasing, but the present tendency in the design of small buildings is to overlook the fact that, unless they have some of the charm of a traditional cottage, they become somewhat dull and lifeless. We have overdone our love for symmetrical paper arrangements, which are often ineffective and wearisome in execution. As long as this is not realised, architects need not expect to obtain the enthusiastic support of the public.

The New Knighthood.

While all his colleagues are delighted with the honour conferred on Sir Edwin Cooper, an honour which is abundantly justified by his achievements as an architect of eminence, and the designer of one of the most successful buildings of modern times, they are disappointed that no similar distinction has yet been bestowed on Mr. Ralph Knott, whose work in connection with the new County Hall should, they feel, have secured recognition. This recognition is, however, perhaps only withheld until Mr. Knott has completed the buildings entrusted to him by the Government of Northern Ireland.

We should also have liked to see a similar honour accorded to Mr. W. E. Riley for his unwearied efforts in the interests of London. No public body in the difficult period of its inception was ever served so well, and we have to be grateful for all he has done in connection with the Council's building works.

Forthcoming Events.

Saturday, January 6.—Royal Institute of British Architects. Visit to the London County Hall.

Monday, January 8.—Royal Institute of British Architects. Business Meeting at 9 Conduit Street, W. 8 p.m.

Architectural Association. Meeting at 34–36 Bedford Square, W.C.1. Paper by Mr. Laurence A. Turner, entitled "The Workshop." 8 p.m.

Surveyors' Institution. Meeting at 12 Great George Street, Westminster, S.W. Paper by Mr. F. W. Hunt, F.S.I., entitled "Zoning in the Control of Large Cities." 8 p.m.

Thursday, January 11.—Sheffield, South Yorkshire & District Society of Architects and Surveyors. Lecture by Mr. J. A. Gotch, F.R.I.B.A., entitled "Notable Houses of Northamptonshire."

Incorporated Institute of British Decorators. Meeting at Painters' Hall, Little Trinity Lane, E.C. Paper by Mr. P. A. Wells, entitled "Furniture Designs of the Eighteenth Century." 7.30 p.m.

Friday, January 12.—London Society. Meeting at 18 John Street, Adelphi, W.C.2. Paper by Mr. J. P. Orr, entitled "The Transport and Open Space Problem in City Development." 5 p.m.

Institution of Heating and Ventilating Engineers. Meeting at the Engineers' Club, Coventry Street, W. Paper by Dr. B. R. Wingfield, Ph.D., M.I.E.E., entitled "Automatic Temperature Control." 7 p.m.

The Ducal Palace of Urbino.

By Selwyn Brinton, M.A.

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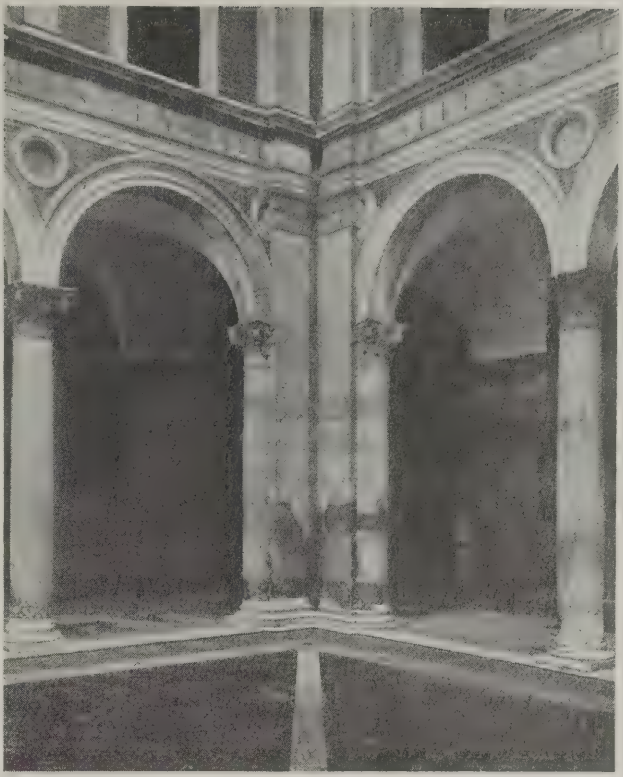
("Biblioteca d' Arte Illustrata." Architetti dal XV al XVIII Secolo. Luciano Laurana. Riproduzioni ventiquattro, con testo e catalogo a cura di A. Colasanti, Roma. Via San Basilio 11-E. 1922.)

II.

In the preceding notice I gave some account of the earlier work of the Dalmatian architect of the Renaissance, Luciano Laurana, especially in connection with the beautiful Arch of Alfonso of Aragon at Naples; but I reserved for this later notice my description and criticism of the creation of Laurana's completed genius, the superb and still happily existing Ducal Palace of Urbino. Before I come to that work, a few words on the city itself and its lords may be of assistance to the subject.

Urbino, lying among the mountains of central Italy in a strong natural position, came in the thirteenth century under the sway of the House of Montefeltro, a family whose chiefs were generally, like the Malatesta at Rimini, Condottiere or paid soldiers by profession, and, like these last again, devoted to the new humanism in art and literature which flourished in these little Italian Courts; but clean fighters, as far as I know, always, unstained, like so many of their contemporaries, by dark whispers of hidden crime, and a shining example in Renaissance Italy of culture and high standards of life. It was the Court of the Montefeltri at Urbino that Baldassarre Castiglione, who had left the Gonzaghi to settle there, celebrated in his "Cortigiano" as the perfect school of courtly manners and culture; and such, indeed it must have been under the great Duke Federigo Montefeltro and his son Guidobaldo; a constellation of brilliant artists had been at different times attracted to this little Court, among the painters, Uccello, Piero della Francesca, Melozzo da Forli, even the Flemish Justus van Ghent; among the architects and sculptors Francesco da Giorgio, who was military engineer to the Duke; Baccio Pontelli, Campagna, Ambrogio da Milano, and lastly Luciano Laurana, whose work of the Palace is stated by Prof. Luigi Serra to have begun between 1465-67, and to have been terminated between 1472-74. That work, says this latter critic in his little book on this Palace and its Galleries, now under his own care, consisted in systematising and extending on both sides the pre-existing building, without sensibly altering its arrangement and decorative spirit, then in creating the façade and converging wings, bringing into connection with them a yet older residence of the Montefeltri (perhaps part of the old Castle, communicating with the Cathedral), and drawing cleverly an advantage from the steep nature of the ground, which hindered a harmonious architectural development of the building, to give it towards the west a marvellous variety of aspect.

"In the spirit which fills this creation," writes this distinguished critic, whom I knew in Venice before he went to central Italy, "the Palace expresses in the completest manner the ideals of the Renaissance." And Arduino Colasanti, in the volume which is the special subject of this notice, develops the same dominant impression. "It is no longer here the old Palace which recalls the force and cruelty of the ancient rulers, the feudal manor whose rare windows open only to menace destruction or to announce triumphs, but an 'ensemble' which awakens in our mind the idea, fascinating in itself, of a happy existence, a living organism wherein the reborn art of architecture manifests to the world one of its new and most exquisite dreams, an impression of calm serenity such as we meet in the purest monuments of antique art." The writer goes on to show how the vast façades acquire variety from the alternation of doors and windows, how the magnificent "cortile" opens its wide arches to the air, while from the three arches set between the towers the breath of the sea comes in from without, and "in the whole is an impeccable sense of proportion, an impression of calm, of Roman gravity, of elegance without ostentation, of splendid repose."



CORTILE OF THE DUCAL PALACE, URBINO.
Designed by LUCIANO LAURANA.

There is no exaggeration in these words of praise; and the delicate beauty of these arches, which recall those designed by Leon Battista Alberti for the Palazzo Rucellai in Florence, may be judged in some measure by the illustration which I give here of two of them within the "cortile." They belong to that exquisite moment of time when the new-born human spirit expressed itself through the forms of the past in art and architecture, but interpreted by its own creative fancy. The whole Palace is, in fact, a masterpiece of this spirit, in which the architect, utilising all the resources of his art with wonderful science, rejecting every trickery to attain his supreme expression alone through the power of style, dominating his material to give its forms a lofty character and studying to express materially the teaching of Alberti, who had said of ornament that "these should be used only as the gems in a crown—that is to say, by placing but few of them, and these in the most honoured position," has created a human symphony—out of the stern old mediæval setting the new life of humanity, uttering a pæan of gladness and creative force. And in so doing he has used the simplest means of decoration; though the exquisite ornament of the earlier Renaissance, which we have seen in his Arch of Alfonso of Aragon, here in the hands of such masters as Ambrogio da Milano or Francesco da Giorgio spread in its luxuriant tracery over walls or doorways. But all this is contained and dominated by the sense of line, the harmony, the mysterious rhythm, "which is not in the line itself, but in the interruptions and successions of the lines; and as the musician sets time beneath rhythm, so our Laurana sets space beneath symmetry, creating between one architectonic member and another those special correlations which constitute 'eurithmia.'"

The ideas which he here expressed and which Signor Colasanti has sought to analyse, went forth through the Duchy of Urbino and beyond, finding an echo in the Palazzo Passionei, in the church of the Zoccolanti, the "loggia" at the entrance to the hospital, and without in the Ducal Palace of Gubbio, the Letimi Palace at Rimini, and the home of the Cardinal of Urbino at Fossombrone. But none of these successors reached Laurana's inspiration. Their efforts at Gubbio or in the Passionei Palace have not the lofty flight of those arches in the great Palace of Urbino; and Luciano Laurana passed away, leaving a name, an almost forgotten memory, which it has been left to our days—and here the present volume does its part—to restore to its high place in creative art.

Mr. John Murray's Central London Scheme.

We note with considerable interest the revival by Mr. John Murray of his proposals as to the approaches to the proposed new road bridge at Charing Cross. With them he has incorporated some suggestions for connecting up with the Drury Lane area which Sir George Parker proposed a little time ago should be rebuilt.

Mr. Murray's intimate knowledge of the conditions of tenure and the relative values of all the properties in this area should enable him to pick his way through these expensive properties with a minimum amount of expenditure; and if, as he claims, he can do this and at the same time satisfy the requirements as to traffic and produce a fine harmonious scheme, there is no doubt that his proposals should receive the very closest attention. There have been so many proposals for dealing with this improvement that the matter is becoming highly contentious.

There is a proposal to hold a public exhibition of all the schemes which have been put forward, and this, we think, would familiarise the public with the details of the problem, and by promoting discussion in the Press and elsewhere would probably result in the establishment of certain fixed principles for future adoption.

Mr. Murray clearly contemplates a high-level bridge approached from the Strand, and in order to disperse the traffic on the Strand side he clears the whole space from the Golden Cross Hotel almost up to Bedford Street, from which he descends to the Embankment by a new street running into the lower end of Northumberland Avenue.

The essence of the problem seems to us, having built the bridge and brought a large volume of extra traffic across it, to find the best means of dispersing it either through the present streets or by a new road leading in the direction where most of the traffic is likely to go.

The L.C.C., in considering how to secure a fine North to South thoroughfare, eventually devoted themselves to Kingsway, Southampton Row, and the roads leading northward to Hampstead Road. This is available for traffic crossing Waterloo Bridge, and possibly even Blackfriars Bridge, but it would be of little use to any traffic crossing this new bridge.

Mr. Murray selects a route via Agar Street, behind the Charing Cross Hospital, crossing Bedfordbury and St. Martin's Lane just below the New Theatre, then crossing Charing Cross Road through the old Hotel de Provence, along the north side of Leicester Square into Coventry Street, and entering the formless Piccadilly Circus, which he transforms into a rectangular space called Piccadilly Square. Only two of the present boundaries of this space would remain—the north and east boundaries are formed by clearing away half the Hotel Monico and the whole of the London Pavilion.

The weakest point of the scheme seems to us to lie in the very heavy expense involved in widening Coventry Street sufficiently to make the roadway uniform, but no doubt Mr. Murray has compared the cost of other routes before deciding on this one; also there does not seem to us to be quite sufficient case for leading a large volume of extra traffic through a congested space like Piccadilly Circus. Most of this traffic would either go westward down Piccadilly for Hammersmith, etc., or north-west up Regent Street and along Oxford Street for North-west London.

As an alternative we should have thought that every purpose would be served by the construction of a new road from the north end of this bridge to St. Giles Circus at the foot of Tottenham Court Road, making best use of St. Martin's Lane and cutting through a portion of Soho to the west of St. Giles Church. Tottenham Court Road would have to be widened, but at the present time the cost of this should not be prohibitive.

The Western traffic could then proceed by existing streets, and the North-Western by Tottenham Court Road and Euston Road. Quite irrespective, however, of traffic conditions, we are entirely sympathetic with Mr. Murray's treatment of Piccadilly Circus. Of course we cannot judge the new Piccadilly Circus by the present one.

As an approach from the proposed new Avenue to the reconstructed "Rookery" in Drury Lane Mr. Murray uses St. Martin's Lane (very much widened), and lays out several new streets connecting this area with Kingsway and Holborn.

These roads differ in several respects from those shown upon the plan prepared by the Holborn Borough Council a little time ago, and without a close study of the conditions it would be impossible to say which of the two plans is to be preferred.

An important question arises in discussing these great improvements—namely, that under present legislation the more publicity is given to any particular scheme, by which means no doubt the best scheme might be expected to be produced, the less chance there is, unfortunately, of its ever being realised, as that very publicity enables land speculators to obstruct by their greed any public improvement generally determined upon. This is a matter which requires, in our opinion, some new legislation. In India recently certain Improvement Acts have provided that after the date of scheduling the properties no subsequent interests shall be allowed to rank for compensation. If schemes were carried through rapidly, this might meet the case; but if the scheme should be suspended for several years, it might result in great hardship upon those owners who had cleared the properties either to rebuild or improve, owing to the complete suspension of their operations until the improvement proceeded. The question is full of difficulty, but it is one which will have to be faced sooner or later unless every public improvement is to be conceived in secret and suddenly announced to the public as an accomplished fact, a process which it very much dislikes.

With regard to Mr. Murray's diagrammatic plan showing several new radial tube constructions with a central underground station, as a fundamental idea it may be very well, except that congestion at the central station would be somewhat serious.

The most recent opinions of experts on this subject are in favour of the abolition of central termini for passenger traffic. The idea would be a series of through services from North to South and East to West and so on with proper changing stations.

Mr. Murray's plan seems to ignore all the present tube lines and makes hardly any use of existing suburban railways. With the present heavy cost of construction, we think it may be taken as an axiom that existing lines must be used wherever possible, and also that actual tube construction would only occur within the radius of, say, four or five miles from the centre. All the remaining lines would have to be in shallow cuttings.

The whole question has been closely considered by the London Society, and we think their scheme for withdrawing all suburban trains from main line stations and connecting them with the present central systems after they have been enlarged so as to permit of express trains is receiving considerable support not only from the Ministry of Transport but from the railway companies themselves.

Competition News.

The President of the Royal Institute of British Architects has nominated Mr. Edward P. Warren, F.S.A., F.R.I.B.A., as the British member of the Jury in connection with the International Labour Office Competition, Geneva, and Mr. E. Guy Dawber, F.S.A., F.R.I.B.A., as Assessor in the Tunbridge Wells Pavilion Competition.

Brechin War Memorial Committee invite designs for a suitable memorial to be erected in the part of the Public Park, Brechin, adjacent to the Glencadam Railway Bridge, cost not to exceed £1,200. Designs are to be submitted not later than February 1, 1923. For further particulars apply to Fred. A. Ferguson, Town Clerk, Brechin, Clerk to the Committee.

Mr. William Kelly, A.R.S.A., LL.D., has been appointed by the Aberdeen Society of Architects to act as local external examiner in Aberdeen in connection with the R.I.B.A. final examination, as arranged through the Arts and Crafts Committee of Robert Gordon's Technical College, Aberdeen.

A Tentative Zoning Ordinance for Indianapolis.

We give below the first or tentative zoning ordinance for the City of Indianapolis, as it exemplifies the clear and orderly manner in which Americans are now dealing with the growth of their cities.

INTRODUCTION.

The proposed zoning ordinance is based on the State Enabling Act, passed by the 1921 Legislature, which authorises the councils of cities to adopt comprehensive zoning ordinances, regulating the location of trades, industries and other uses of property, the height of buildings and the size of lots and yards. The Enabling Act provides that, before the council may adopt a zoning plan, the City Plan Commission shall recommend a comprehensive zoning plan and ordinance to the council.

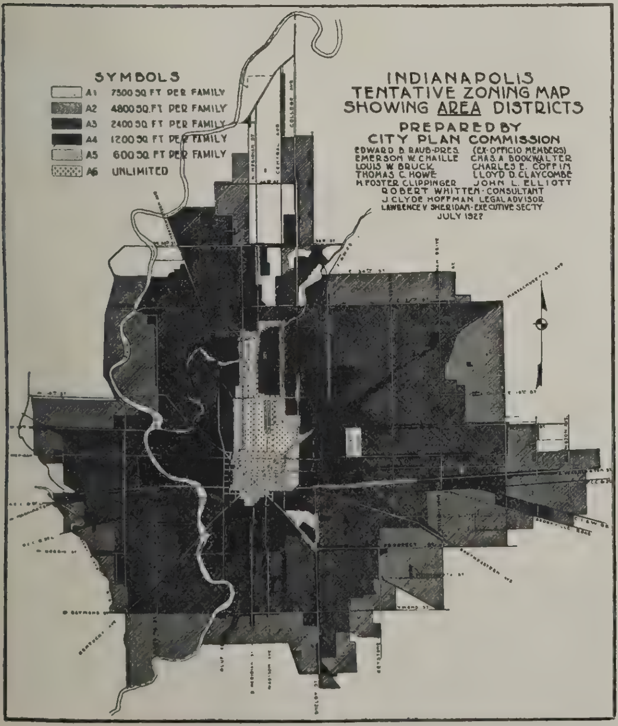
In January, 1922, the City Plan Commission started work on a comprehensive zoning plan. The Commission has made a careful study of each section and each block in the entire city. Detailed maps were prepared showing the existing building development throughout the city. Studies were made of the existing distribution of population and the trend of residential, business and industrial development in the various sections of the city. As a result of such study, and after repeated inspection on the ground of each street and block, the boundaries of the various zones or districts as now tentatively proposed were marked out and regulations were drafted governing the uses, heights and areas to be allowed or required in each such zone or district.

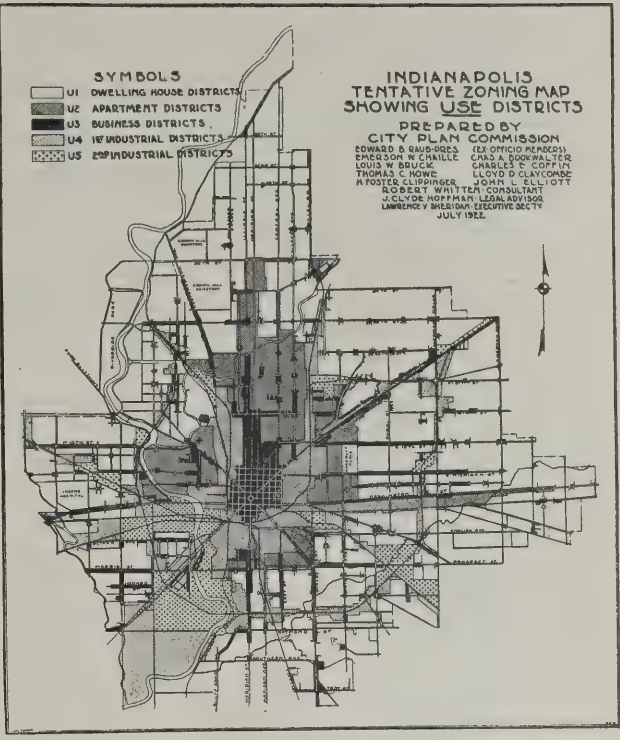
The plan now presented is not final, but is submitted as a basis for general discussion and constructive criticism. It is believed that suggestions resulting from a disinterested and sympathetic study of the plan by the public will be beneficial in many respects and will direct attention to changes that should be made to correct mistakes that are almost inevitable in the preparation of a work of this magnitude. Citizens are invited to call at the office of the City Plan Commission in the City Hall and examine the proposed zoning ordinance and zoning maps. All suggestions or recommendations for changes will receive careful consideration; and, as soon as practical, a revised plan and ordinance will be prepared for presentation to the council.

OUTLINE OF THE TENTATIVE ZONING ORDINANCE.

The entire city is divided into 5 classes of use districts:

1. Dwelling house districts.
2. Apartment house districts.
3. Business districts.
4. First industrial districts.
5. Second industrial districts.





Dwelling House Districts.—In the dwelling house districts, apartment houses, stores and industries are prohibited and no residence building may be erected for more than two families.

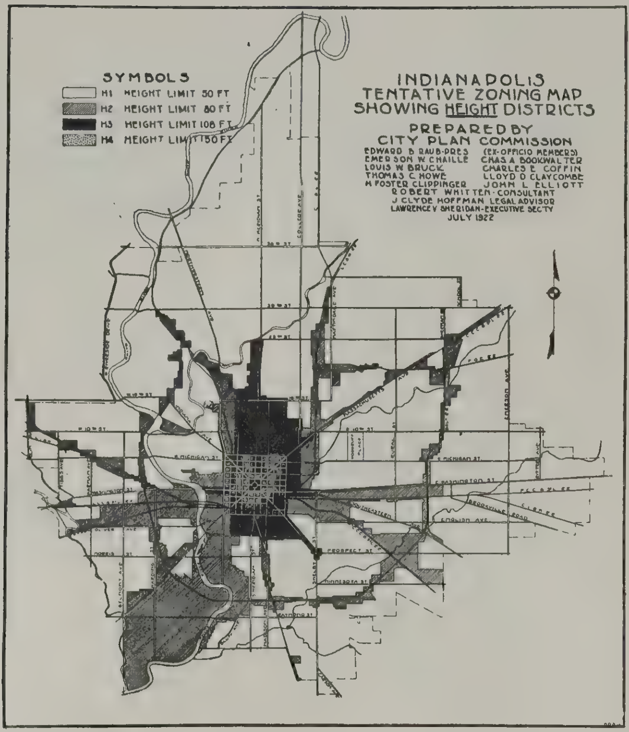
The dwelling house districts are subdivided into three classes of area districts. (1) In the first class, 7,500 square feet of lot area is required for each family housed on the lot. The minimum width of the lot for a single family house in this class is 50 feet. In order to secure the required 7,500 square feet of area, a depth of 150 feet will be necessary for a lot having this minimum width of 50 feet. Only areas where single family houses are now located on large lots or where vacant lots are platted with a minimum area of 7,500 square feet, have been placed in this first class area district. (2) The second class area district requires 4,800 square feet of lot area per family and the minimum lot width is 40 feet. A lot 40 feet by 120 feet is the minimum size for a single family house. The less developed sections encircling the city have in general been placed in this district providing for a single family detached house development on 40-foot lots. (3) In the third class, 2,400 square feet of lot area is required for each family. Most of the present dwelling house sections are placed in this class; thus permitting the erection of a house for two families on a 40-foot lot.

Apartment House Districts.—In the apartment house districts, business and industry are prohibited, but all kinds of residence buildings are permitted. The apartment house districts include the areas not assigned to business or industry near the heart of the city.

The apartment house districts are also divided into three classes of area districts; the first requiring 1,200 square feet of lot area per family, thus permitting 4 families on the ordinary 40-foot lot; the second requiring 600 square feet of lot area per family, thus permitting 8 families on the ordinary 40-foot lot; and the third, designed for the elevator apartment or hotel building having no restriction as to the number of families that may be housed on a given lot area.

Building Lines.—Building lines are established in all dwelling house and apartment house districts. Where 50 per cent. of the frontage in a block is built up with dwellings that set back from the street line, the alignment of the existing buildings is made the building line. No new building is permitted to project beyond the front of the adjacent buildings. In blocks that are not sufficiently built up to form existing alignment lines, a building line fixed at 20 per cent. of the average of normal depth of the lots in the block. If, however, the lots are more than 200 feet in depth, the set back from the street line need not be greater than 40 feet. Along the side line of a corner lot the set back must be 10 per cent. of the width of the lot up to a maximum of 10 feet.

Side and Rear Yards.—In dwelling house districts or apartment house districts side yards are required having a minimum width of 4 feet and at least 20 per cent. of the width of each interior lot must be devoted to side yards, provided not more than 16 feet need be so devoted. For an apartment house or for any building



more than two and one-half stories in height the width of each side yard shall be not less than one-sixth of the height of the building. In a dwelling house district the rear yard shall be 15 per cent. of the depth of the lot but need not exceed 30 feet. In an apartment house district the rear yard shall be not less than one-half of the height of the building. Forty per cent. of the area of the rear yard may be occupied by a one-story garage or other accessory building.

Business Districts.—In a business district the ordinary uses found in the central business section and in the local neighbourhood business centers, including the public garage and various storage uses, are permitted. In the central business section very light manufacturing, job printing and newspaper printing are also permitted. Any buildings or uses permitted in the dwelling house districts or apartment house districts are also permitted in the business districts. A large expansion of the central business section is provided for. Adequate areas are also provided to serve the needs for local stores in all the residence sections. Small local business centres are provided at approximately half-mile intervals throughout the residence sections except where a scattering of stores along a street car route has made it advisable to throw the entire street into a business district.

Industrial Districts.—The two classes of industrial districts include substantially all of the areas now devoted to industrial purposes and provide large areas for industrial expansion along the various railway routes and adjacent to the central business section. The distinction between the first industrial district and the second industrial district is that certain semi-nuisance industrial processes that are permitted in the second industrial district are excluded from the first industrial district. These uses, for which the second industrial district is especially designed, are certain chemical plants, gas plants, central station light or power plants, boiler-making, structural iron works, packing houses, glue manufacture, fertiliser manufacture, etc. The following uses are entirely prohibited within the present city limits: Petroleum refining; cement, lime, gypsum or plaster of Paris manufacture; chlorine or hydrochloric, nitric, picric or sulphuric acid manufacture; smelting of copper, tin, zinc or iron ores; and the manufacture or storage of explosives.

Heights District.—The entire city is divided into four classes of height districts. The maximum limits in these districts are respectively 50 feet, 80 feet, 108 feet and 150 feet. In the 80-foot, 108-foot and 150-foot districts, however, the limit fixed is merely a limit at the property line, and after reaching such height, buildings may go higher if set back 1 foot for each 3 feet of additional height. This set back must be from the side and rear lines of the lot as well as from the street line. It is also provided that the board of zoning appeals may permit a tower covering not more than 25 per cent. of the area of the lot to be erected to any height.

The 150 foot height limit applies to the central business section with the exception of the frontage around the Circle and along the Plaza. The 108-foot height limit applies to the Circle, the frontage along the Plaza and to the commercial, industrial and elevator apartment house sections adjacent to the central business district. The 80-foot height limit applies to industrial areas outside of the central section. It is provided, however, that grain elevators, gas holders and other industrial buildings requiring a greater height for the normal operation of the industry, may be erected to such greater height, with the approval of the board of zoning appeals. The 50-foot limit is applied to all of the dwelling house districts and to most of the apartment house districts.

Nonconforming Uses.—The Zoning ordinance does not affect existing uses of property. A use or building existing at the time of the passage of the zoning ordinance which does not comply with the regulations of the district in which it is located is called a nonconforming use. Such uses and buildings may be continued. The zoning ordinance is not retroactive. If, for example, there is a store in a block that under the zoning ordinance is included in a dwelling house district, the store may, nevertheless, be continued. A building housing a nonconforming use may not, however, be structurally altered to an extent exceeding during any 10-year period 60 per cent. of the assessed value of the building.

Enforcement: Board of Zoning Appeals.—The zoning ordinance will be enforced by the Commissioner of Buildings. No building permit will be issued unless the building and its proposed use conform to the zoning regulations.

In the application of the zoning ordinance many cases will arise, especially near the dividing line between two use districts, where the strict letter of the zoning regulations may properly be modified. This can be done in specific cases without injury to the general public purpose of the ordinance, while at the same time avoiding unnecessary injury to the individual owner. Strictly limited discretion is, therefore, lodged in a board of zoning appeals created by the ordinance to make minor modifications and exceptions to the general rules and regulations established by the ordinance.

Amendment of Zoning Plan.—Subsequent to the adoption of the zoning ordinance, the council will have full power to amend and supplement the plan from time to time. Minor changes will doubtless be necessary to correct imperfections in the plan. Other amendments will be required from time to time to meet changing conditions of city growth. The plan as adopted should, however, be fairly permanent, and amendments should only be approved after careful consideration has shown them to be reasonable and necessary in the general interest.

"The Architect" Fifty Years Ago.

JANUARY 4, 1873.

THE ALBERT MEMORIAL

The foremost place among the public works of architecture which have to be noticed in a review of the year 1872 is necessarily due to the Albert Memorial. This monument stands alone among modern undertakings for the elaborate richness of its conception, the excellence of its execution, and the merit of those fine works of art which are embodied in it as parts of a great whole. Rarely has our country seen such a mass of high-class sculpture devoted to the enrichment of one work, or so many skilled artists and artificers combined under one superintendence; indeed, since the west front of Wells Cathedral was executed we doubt if anything so rich has been attempted; and such a combination of carving, metal work, precious stones, polished granites, mosaic, and marble into one large work has, so far as we know, no precedent west of India, if even there. It would be strange, indeed, if in going so boldly out of beaten tracks even Sir GILBERT SCOTT's experience were never at fault, and no occasion were given for adverse criticism; but there are few who will fail to admit that a great success has been achieved, and one far beyond general expectation. It is, of course, open to question whether the idea of a vast enriched and jewelled shrine for the statue of the Prince was quite wisely chosen for an out-of-doors monument in such a climate as ours; but the idea once admitted there can be no question as to the completeness with which it has been wrought out.

Mr. J. Jeffrey Waddell, architect, Glasgow, has prepared plans for a small church which it is proposed to erect at a cost of £2,500 in the island of Gigha, off the Kintyre coast.

We are indebted to Messrs. the Kleine Patent Fire-Resisting Flooring Syndicate, Ltd., for the use of their copyright photograph of the exterior of 5 and 6 Crosbie Square which appeared in our issue of December 29, and also to Messrs. Singer & Co., of Frome, for the view of the main staircase.

EGLISE S. GILLES DU GARD. By Percy J. Westwood.

The Society of Graphic Art: Third Exhibition.

This exhibition opens at Suffolk Galleries, Pall Mall East, S.W.1, to-day, January 5.

The Society is to be congratulated on the very high merit displayed. The pity is that the President, Mr. Frank Brangwyn, R.A., is not represented by a more inspiring piece of work. When we recall the many wonderful and masterly pictures and decorations produced by this great artist, it comes as a keen disappointment that he should have been content to be represented in this way. Remembering the highly complimentary comments made on the occasion of the previous exhibition by a daily paper of very wide circulation with respect to Mr. Brangwyn's work, it may be that the President of the Society has been actuated by the desire to let others have an opportunity to show their abilities. Laudable as such a feeling is, we should have preferred to see the master's hand better represented.

The Etchings.

No. 2, "Aber Conwy, the oldest House in Wales," by Gertrude Hayes (Mrs. A. K. Morgan). From the architectural point of view this drawing has much interest, depicting a very notable specimen of half-timber work. As a picture the etching is full of fine light and shade.

No. 12, "Elizabeth," by J. L. Brockhurst, is a wonderful piece of draughtsmanship.

No. 23, "The Wayfarers" (dry point), by D. I. Smart, is worthy of special notice: the simplicity of treatment and yet finely suggested colour values, with the light and shade contrasts, make a very strong appeal.

No. 29, "The Bookworm," by Harold Nelson, shows the artist in a happy vein. The mannerisms to which we have grown accustomed are absent, and the result is refreshing and a decided improvement. All the artist's great knowledge of line and tone value is expressed.

In No. 30 the old Harold Nelson is back again. The well-known bramble with carefully drawn leaves and usual curves is with us once more. The panel possesses decorative charm and value.

No. 38, "Wells Cathedral," by R. E. Bush, R.E., etc. All that is missing in Nos. 31 and 37 is here expressed in charming profusion. The artist shows a keen appreciation of what line and mass effects can produce. The drawing of the trees in contrast with the treatment of the foreground is masterly. Possibly a purchaser might complain that to justify such a title the cathedral should play the premier rôle in the picture and not be an item of very secondary importance.

No. 40, "Rouen Cathedral, North Transept," by Percy Westwood, is effective and powerful; but if less detail were shown in the great shadow mass to the right of the picture, the whole effect would be improved. At present there is a conflict of interest between this detail and the lower buildings in the centre.

No. 56, "A Cup Tie Goal," by Malcolm Osborne, A.R.A., graphically suggests the wild frenzy displayed at these crowded gatherings. The composition from the artistic point of view leaves little to be desired, though it might not satisfy a footballer.

Nos. 55 and 59 are also by Mr. Osborne. The latter is a fine example of restraint. The atmosphere and poetry of the scene makes itself felt, which is, after all, the main object of all art.

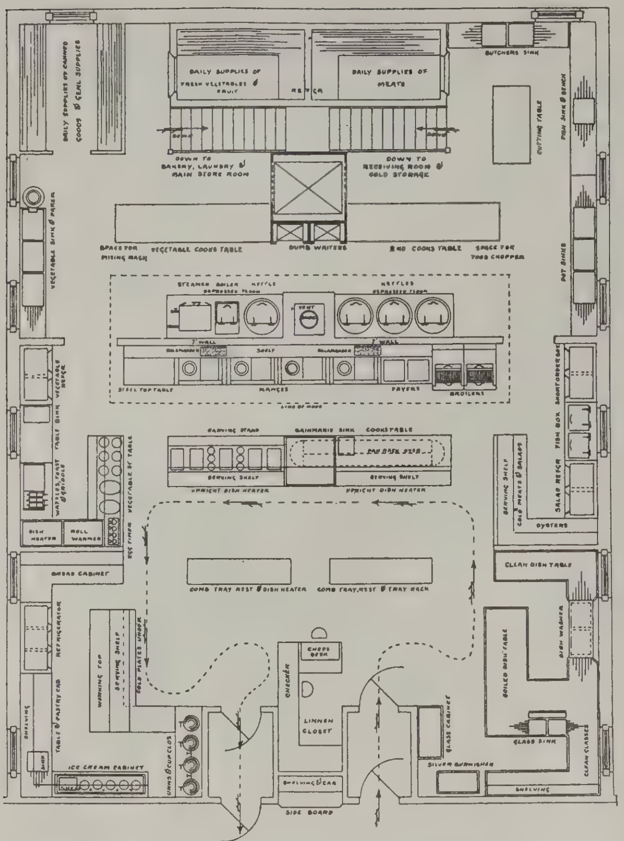
No. 97, "Towers and Spires, Westminster," Christopher M. Shiner. We hear that this artist is in Spain, and confidently expect to see some good results from this visit in the near future. "Towers and Spires" is a subject that must be treated in one of two distinct ways, either pictorially or architecturally. To mix the two in one picture is almost sure to prove unsatisfactory. Though Mr. Shiner's effort shows much that is good as a whole, we cannot pronounce it a success.

In No. 103, "Beeches in Arundel Park," the tree boles are well drawn and expressed with considerable feeling and modelling; the leaves are shown by Miss Wollard in effective contrasting masses. The whole view is very charming.

No. 107, "Blea Tarn, Langdale," by B. Eyre Walker, is full of romantic feeling, and makes a well-drawn picture and a good etching.

Everything in No. 111, "Verona," by F. Marriott, pleases, except the river, but this latter does not in the least resemble a waterway, unless the same is supposed to be frozen over or is made of rough glass or shining metal or anything else not liquid. The streaky lines spoil the effect.

No. 113, "The Church of St. Jacques," J. Alphege Brewer, is a typical example of this artist's work. The light and shade is masterly, but the detail seems futile and overpowering.



The Hotel or Restaurant Kitchen.

By N. W. Aldrich.

Prompt and smoothly running service, upon which depends the success of a restaurant or a hotel dining room, is almost entirely a matter of its being served by well-equipped and well-arranged kitchen and other service quarters. An examination of a successful restaurant kitchen will show that it has been so planned and organised that it becomes a kind of mechanism, not readily thrown out of balance by unexpected demands upon it.

To make plain what is meant by a well-planned and equipped restaurant kitchen a diagram is given which may serve to illustrate the suggested layout. While the plan will to a certain extent explain itself, it is the writer's aim to explain how important it is to bring such departments as are shown on the plan, and especially those in the serving department, as near as possible to the dining room.

It would be almost impossible to give the exact capacity of such a kitchen, owing to the fact that this depends wholly upon its supervision. Stewards as a rule are accustomed to certain ways of running their departments, and some of the most competent in their line may not be familiar with or understand plans as well as an architect or engineer who would consider it his duty to see that such plans are thoroughly understood. Relative to capacity, however, this kitchen with proper supervision should be large enough for the dining room of a medium sized hotel, say of 400 or 500 rooms, or for a restaurant with a seating capacity of from 300 to 400. With the limited amount of space available for this kitchen, say 45 by 60 feet, the receiving room, storeroom, bakery, laundry, employees' dining rooms, etc., are located on the floor below and should be properly lighted and ventilated.

Although it is not advisable to recommend every kind of apparatus that may be used in kitchens without first consulting the owners, managers or stewards, care should be taken that space be allowed for such fixtures in order that these may be installed at a later date without interference with the more essential details which are already in place. The section of the kitchen where dishes, silver and glass are washed should be so arranged that waiters or 'bus boys may deposit used dishes at soiled dish tables without interference with those working in this department. A large soiled dish table should be so arranged that glasses and silver as well as dishes may be cared for in this corner of the kitchen. Dishes should pass through a dish washing machine to the clean dish table where they are assorted and placed in heaters or on shelves, and glass should pass in an opposite direction to glass washer or glass sink and be dried ready to return to cabinet or dining room. Silver may be washed in the same machine as dishes and then passed to where it is sorted and dried, but as dish water is always greasy, glasses should be washed either in a separate machine or a double sink. They never look bright and shiny unless properly wiped. A silver burnisher will also be found practical, and since it is considered one of the essentials, like the machines for cleaning and polishing steel knives, space has been allowed for all these details on the plan. The oyster bar and bar or counters for salads and cold meats, together with a short order or cut meat box and sea food chest are so arranged that a shortage of help would not cripple the service as it would if these departments were scattered, and waiters ordering from these departments are served over the shelf at convenient height above the working top of the salad bar. The combination feature, including cook's table, bain marie and carving stand, is so located and equipped with upright dish heater that several waiters may be served at the same time without interference, the top of the dish heater being used as a serving shelf and the two tables in the centre of the floor being useful for resting trays while loading as well as for warm dishes and clean tray rack.

The section where the vegetable cook performs her duty while serving is provided with steam table, roll warmer, dish heater, table, and combination griddle, toaster and waffle iron; also with sink and refrigerator for cooked vegetables. The egg timer is so located that the waiters themselves may attend to boiling eggs at breakfast time. This vegetable steam table should be provided with dish heaters, under the table as well as overhead, and a serving shelf with space under the roll warmer arranged for storage purposes.

Next in line we have the serving pantry, equipped with bread and pastry cabinets; a refrigerator for fruits, dairy products, etc.; ice cream cabinet; urns and urn stand with cup closets, and serving counters, equipped with overhead shelves; drawers and shelving on the working side, and narrow shelves for cold plates and possibly silver boxes on the service side. By carefully planning this serving pantry there will be found shelf room enough to care for quantities of dishes, tea and coffee pots, etc., as well as food, and sufficient amounts of both should be stored for each serving period.

By locating the checker's desk in the centre of the kitchen it will be possible for her to observe the service as well as performing her duty as checker.

Going to the rear of the kitchen, or at the back of the cook's table and carving stand, where ranges, broilers, kettles and steamers are installed, there is in this case a tile wall dividing the ranges and broilers where order cooking is done from the steam fixtures. It is not necessary for this wall to be more than 6 feet high, excepting of course at the vent stack located in the centre. A large canopy or hood covering these fixtures should carry off the greater part of the smoke, steam and fumes, and where coal ranges are used for cooking, a steel stack enclosed in vent stack as shown on the plan would provide natural draught which in most cases is sufficient. The floor under the steam fixtures should be depressed and properly drained in order that it may be kept clean. Other floor drains are important, but should be so located that they will not interfere with service. The butcher shop, where daily supplies of meat, fish, etc., are prepared, is conveniently located and can on short notice replenish the cut meat or fish supply for the cook.

The opposite side of the room, used for preparing and cooking vegetables, is but a few steps from the station where they are served. Space for the mixing machine, food chopper and other extra equipment may easily be obtained in this room, and with elevator and dumb-waiters as well as stairways to other auxiliary departments, this kitchen should prove itself to be both practical and economical.

In many cases where space is available it is considered more practical to have the various branches partitioned or separated. In such cases there are separate rooms for washing dishes and glass, and also a silver room, which, of course, keep one person busy all of the time, and many more part of the time, especially if out of sight of the steward or chef.

No doubt the larger kitchens may be looked upon from a different standpoint, owing to the fact that each of these units is of such size that a much larger force is required for operating. The same principle, however, applies in both cases, and in this particular case the object in view is to show a kitchen of medium capacity which can be operated at minimum cost and at the same time produce quick service.

Aside from the steward and his assistant, such a kitchen should be operated with the minimum number of attendants: chef and second cook; two broiler and fry cooks; roast cook; two butchers; two salad men; two oyster men; a vegetable cook with four assistants; four girls in the serving pantry; twelve employed in washing dishes, glass and silver; two general kitchen men, and two checkers. This is based on giving full hotel service where two shifts are required, and aside from extra work at the carving stand this number should be sufficient to care for banquets as well as for regular dining room service. This combined service unit, together with a properly organised dining room force, should be a guarantee of good service in every respect.

Providing a lunch room or cafeteria is installed, whereby this kitchen is depended upon for supplies, care should be taken in order that such a department be so connected with the kitchen that its service would in no way conflict with that of the dining room. In most cases where this department would be on a separate floor, elevators and dumb-waiters will add all necessary convenience.—(The "Architectural Forum," New York).

Correspondence.

Builders and an Industrial Parliament.

To the Editor of The Architect.

Sir,—The following questions are often asked: "Is peace possible?" and "Does the National Federation of Building Trades Employers meet the National Federation of Building Trades Operatives?" The answer to both of which is "Yes."

In further explanation will you permit me to add that a building trades parliament, known as the Industrial Council for the Building Industry, was constituted? It was composed of architects, building trades employers and operatives, and had as its main expressed purpose the consideration of exactly similar subjects to those which appear to be the province of the proposed Industrial Parliament. Of perhaps still greater importance to the peace of the building industry is the National Wages and Conditions Council, being a joint body composed of an equal number of employers and operatives. The purpose of this Council is, as its name suggests, the peaceful settlement of rates of wages and conditions of employment in the building industry. A still more recent development has been an agreement by which no action prejudicial to industrial peace is to be entered upon locally without previous reference to a joint national emergency committee. The effect of the functioning of such joint bodies upon the peaceful conduct of the industry is at once evident when it is known that throughout the recent years of industrial strife the building industry is one of a very few, if not the only one, in which there has been not a single instance of a national strike or lock-out.

The foregoing conclusively answer the inquiries as to whether the masters and employees meet in the building industry, and whether such meetings tend towards peace. But as to any suggestion of the employers entering into a further scheme for a parliament of industry, it should be remembered that they were forced to withdraw from the Industrial Council mentioned above on account of the fact that it became clear that the Socialist element was exploiting the original purposes of the Council for their own ends—namely, the elimination of the employer. Therefore, a word of warning should be given to those interested in the establishment of an industrial parliament: that in drafting the constitution every possible care should be taken to prevent a similar exploitation to that referred to above, as it is obviously impossible to expect employers to co-operate with any body which has as its main object their ultimate destruction.—Yours, etc.,

H. Bryant Newbold,
Editor the "National Builder," the official organ of the National Federation of Building Trades Employers.

48 Bedford Square, London, W.C.1.

Atmosphere.

To the Editor of The Architect.

Sir,—I recently visited a famous West End business firm which appeals to the artistic curio hunter. What he offered his clients was truly beautiful, but he had given very little thought to creating an atmospheric harmony. His Oriental *objets d'art* were displayed very tastefully and in great profusion, but clients were obliged to walk on carpets that ought never to have been seen in the premises.

If you desire to impress clients that you are a man of taste and know the value of the artistic objects you handle, do not shock them by surroundings that proclaim in a loud voice that you are out of real sympathy.

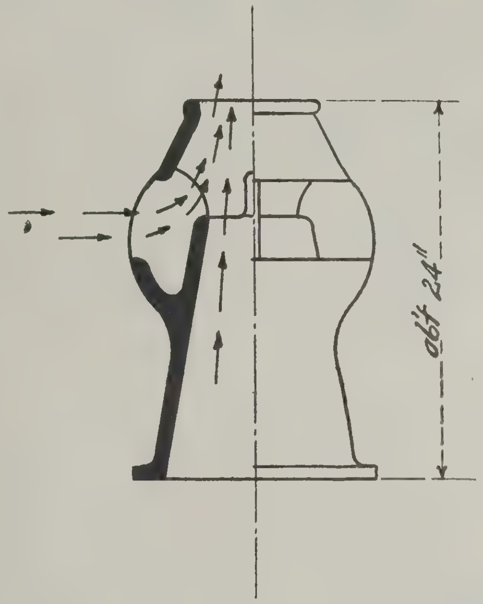
Sitting in a West End tea shop recently I could not help reflecting upon the utter lack of taste exhibited in the decorations. Surely the promoters and proprietors do not think that pressed beef marble and heavy fibrous plaster ceilings increase the appetite of customers. We hear that colours have varying effects upon the nervous system. Perhaps our hotel and restaurant proprietors will in the near future awake to advantages that might be derived from the most conducive decoration, that will influence an appetite in the client and not inspire a keen desire to get out of the conflicting and restless surroundings.—Yours, etc.,

"Y."

Anti-Downdraught Chimney Pots.

To the Editor of The Architect.

Sir,—*Re* Mr. C. A. Line's letter in the issue of the 22nd ult. and his query as to the best form of chimney pot, the writer has recently come across a very simple form of clay pot which has proved a success with several hitherto incurable cases of downdraught. In more than one case it has been successful where several expensive forms of apparatus had previously failed.



From the enclosed sketch it will be seen that the pot is a simple form of ejector, and satisfies Mr. Line's requirements as to being easily swept, without moving parts, and made in one piece. The sketch is not to scale.

The patent rights are held by a local builder, with whom I should be glad to put Mr. Line in touch, should he so desire it.—Yours faithfully,

S. Latour Hordle.

Andrews Buildings,
67 Queen Street, Cardiff.

Income Tax Deductions.

To the Editor of The Architect.

Sir,—The Income Tax demand notes now being issued are an unpleasant reminder of the continuing burden of taxation, despite the reduction in the rate of tax. It is essential that taxpayers should carefully verify the correctness of the amount demanded, for it is well known that much overpayment is made through lack of knowledge of the various deductions, allowances, and reliefs which are claimable.

The following are some of the more usual deductions, shortly stated, which the individual taxpayer should check to assure that he has escaped over-charge—viz., earned income tenth, personal allowance (£225 married or £135 single), wife allowance to £45 on earnings (including value of services in husband's business), children allowance (£36 first and £27 subsequent), housekeeper allowance £45, widowed mother £45, dependent relative £25, first £225 taxable at 2s. 6d., life insurance premiums 2s. 6d. to 5s. per £, wear and tear of plant and machinery, superannuation contributions, expenses wholly and necessarily incurred, employees' earnings on the current year, relief on taxed income, untaxed interest reduction if investment sold.—Yours, etc.

W. R. Fairbrother,
Income Tax Specialist.

67-68 Cheapside,
London, E.C.2.

At the next meeting of the Thorne Rural Council plans will be submitted for the erection of 250 to 500 houses at Stainforth by the Hatfield Main Colliery Co. This is only part of a large scheme for the development of this colliery village, where the population has increased by 2,000 during the last three years.

The Royal Institute of British Architects.

The following are notes from the minutes of the Council meeting held on December 18, 1922 :—

Exhibition of Architecture, Town Planning and Complementary Arts.—The Council approved in principle and referred to the Art Standing Committee for constructive consideration a proposal for the holding of an Exhibition of Architecture, Town Planning and the following Complementary Arts :—

1. Mural decorative painting.
2. Sculpture and ornamental carving and casting.
3. (*a*) Furniture and woodwork ; (*b*) tapestries, weaving and decorative hangings ; (*c*) pottery and ceramics ; (*d*) metal work ; (*e*) household utensils and appliances.

London Squares.—The Council endorsed the action taken by the Art and Town Planning Committees and the London Society with regard to the measures to be taken for protecting London squares.

The Franco-British Union of Architects.—The Council made a grant of £20 in aid of the work of the British Committee of the Franco-British Union of Architects for the current year.

The British Engineering Standards Association.—Mr. Max Clarke was appointed to represent the R.I.B.A. on a Sub-Committee appointed to consider the standardisation of cast iron half-round, O.G. and other moulded gutters.

National Registration of Plumbers.—Mr. H. D. Searles-Wood was appointed to represent the R.I.B.A. on the Council for the National Registration of Plumbers.

The Royal Sanitary Institute Congress, 1923.—Mr. H. D. Searles-Wood and Mr. John Bilson were appointed representatives of the R.I.B.A. at the Thirty-fourth Congress and Exhibition of the Royal Sanitary Institute, to be held in Hull from July 30 to August 4, 1923.

Reinstatement.—Mr. Harold Burleigh was reinstated as an Associate.

The Exhibition of Contemporary Architecture.—The Council accepted an invitation from the Architectural League of New York to despatch the Exhibition to that city to form the British Section of an International Exhibition of Architecture.

Scottish National War Memorial.

Reports from the Ancient Monuments Board for Scotland issued last week by H.M. Office of Works dealt with the proposed national war memorial at Edinburgh Castle. In the first it is mentioned that the proposal to place the memorial within the precincts of Edinburgh Castle had caused a good deal of discussion in Scotland, especially in regard to its effect on the existing buildings. Plans prepared by Sir Robert Lorimer had been considered by the Board, and the various outstanding features are detailed in the report. In the second report the Board say that they have considered the revised plans for the proposed national war memorial, and also examined a model prepared by Sir Robert Lorimer. As revised, the plans met certain specific objections in the earlier report. Among other things, the scheme for remodelling the old officers' quarters had been abandoned, and the report concludes :—

" There remains the more serious question of the outline and the effect of the proposed demolitions and additions on the traditional character of the Castle as a whole. Considered strictly from this point of view, after eliminating so far as possible questions of taste and sentiment, the design appears to us open to two grave objections : (1) The substitution of a lower building for the old North Barracks will effect a marked change in the outline as seen from the north and east, and especially from the Castle Esplanade and from Princes Street east of Castle Street. Its traditional character from these points of view largely depends (as pointed out in our last report) on the blocks of buildings enclosing Crown Square. In this respect the outline has remained substantially the same for nearly 600 years, the old North Barracks corresponding roughly in length and height to the fourteenth century chapel which they superseded. (2) The proposed shrine, as viewed from the streets on the north and east, or from any aspect outside the city, would form an isolated and dominant feature foreign to the traditional character of the Castle buildings, and decidedly superseding the Crown Square block as the centre of interest.

" We do not wish to insist too much on objections which may conceivably be over-ridden by other considerations where a national memorial of the first importance is in question. Many of the most prominent buildings on the Rock are modern, and the outline as viewed from Princes Street has been more than once drastically altered since the beginning of the nineteenth century. But we may point out that the present design in both the respects mentioned above departs very widely from the ideal laid down by Sir Robert Lorimer in his report of April 28, 1919, which deprecated any structure which would obtrude itself upon the existing skyline and be a conspicuous feature in the view of the Castle from the surrounding country, and foreshadowed ' a building which will not materially alter the familiar silhouette.' We venture to suggest that before your decision is taken full consideration should be given to the question whether the designs might not, without defeating their purpose or impairing their undoubted dignity and beauty, be brought into closer conformity with this ideal."

The Wessex Society of Architects.

An important development in the organisation of the architectural profession in the West of England has just been completed by an agreement between the Bristol Society of Architects and the Gloucestershire Architectural Association.

The two bodies have been combined in a new body known as " The Wessex Society of Architects." The new society will have as its province the counties of Somerset, Gloucestershire, Wiltshire and Dorset, and the two constituent societies will retain their original titles as branches of the Wessex Society.

Mr. Thomas Hardy, O.M., the famous poet and novelist, who is an Honorary Fellow of the R.I.B.A., has accepted the first Honorary Fellowship of the new body, which has been admitted as an " Allied Society " of the Royal Institute.

Victoria and Albert Museum.

The National Art Collections Fund has purchased and presented to the Victoria and Albert Museum a complete set of alabaster figures in relief of the Twelve Apostles, English work of the fifteenth century. Each Apostle is holding his emblem and the appropriate sentence of the Creed.

Similar sets are to be seen on tomb-chests in the churches at Abergavenny and Tong, but, although isolated figures of the Apostles exist in public and private collections, no other complete set is at present known.

The series, which still retains a great part of its original colouring and gilding, is of the greatest importance to the student of mediæval art and iconography, and forms a most valuable addition to the collection of English alabaster carvings in the Museum.

It is particularly fortunate that through the timely and generous action of the Fund these typical examples of English mediæval workmanship should have been preserved for the nation.

General.

The " Regent " Company propose to convert the warehouse belonging to Messrs. Wilkinson & Son, Barnsley, into a café and up-to-date dancing saloon.

The Architectural Association will open on Monday, January 8, at 34-36 Bedford Square, W.C., an exhibition of " Architectural Phantasies "—imaginary buildings, etc.—by a few invited architects and members of the staff.

Messrs. Boots Cash Chemists have acquired the former premises of Messrs. Smith & Marshall, Market Hill, Barnsley, which were destroyed by fire about twelve months ago. Messrs. Boots are proposing to rebuild the premises.

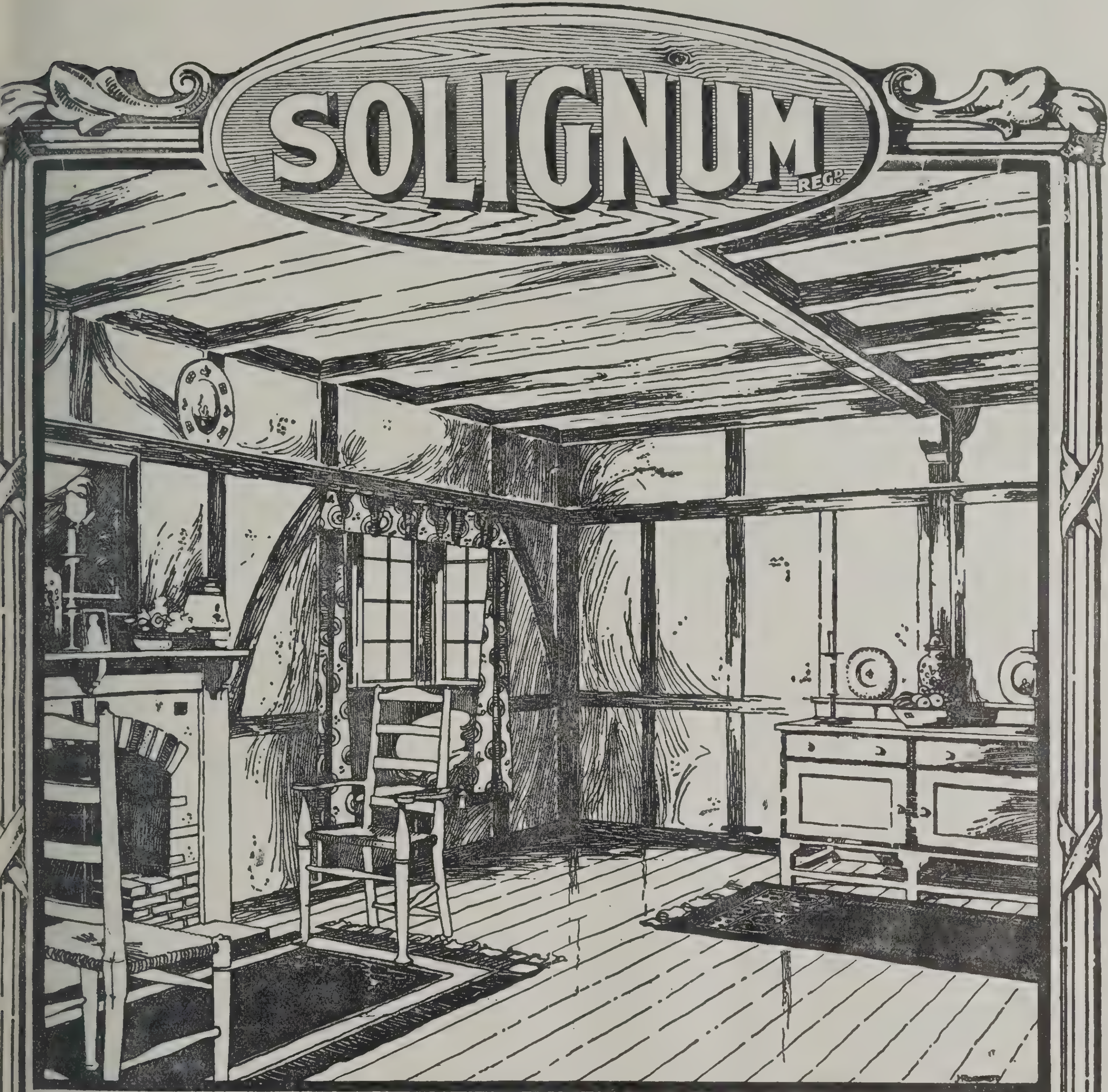
An extensive improvement scheme is contemplated by Greenock Corporation, involving the clearance of a large number of the slums in the town. The scheduled area includes over 1,400 houses, besides workshops and offices, and the scheme is estimated to cost £300,000.

The subscribers to Kinghorn War Memorial have adopted the model submitted by Mr. Williamson of a monument surmounted by figures of a Black Watch soldier and Naval seaman. The monument will be of Cullaloe stone, and will stand 14 ft. high, costing approximately £520.

Aberdeen Town Council Housing Committee have approved a report recommending the sweeping away of slum houses, numbering 1,100, and the erection of 1,120 new houses at the estimated cost of £587,500. This will necessitate an assessment of 3d. in the £. The transference of slum dwellers to new suburbs is not contemplated.

The Middlesex County Council has accepted the tender of Walter Jones & Sons of £87,910 for the construction of the section of the Great West Road between Lionel Road and Chiswick High Road. The work includes the construction of a large bridge over the North London and South Western Railways. The highest tender was £122,535 10s. 2d.

Messrs. White & Stephenson, architects, Newcastle, have prepared plans on behalf of Mr. J. Dobson, Newcastle, for a proposed picture hall in Botchergate, Carlisle. The new cinema will occupy the site of the present Botchergate billiard saloon, and at the rear there will be a garage with a billiard saloon above. The hall will accommodate over a thousand people.



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Varieties.

Ex-Provost Gordon, of Bathgate, whose death took place recently, has bequeathed £5,000 to Bathgate Town Council for the purpose of erecting Municipal Buildings and Town Hall.

On and after January 1, 1923, a partnership has been arranged between Mr. E. Keynes Purchase, F.R.I.B.A., F.S.I., and Mr. Roland Welch, A.R.I.B.A. The title of the firm will be Messrs. E. Keynes Purchase & Roland Welch, and the address, 20 and 22 Maddox Street, W.1. (Telephone : Mayfair 2404.)

The designs for Messrs. Woolworth's new four-storey building on the St. Peter's Church site, Liverpool, have been approved by the Liverpool Corporation Finance Committee. The Church Street frontage on the north side of the site extends to 239 feet. The plans have been prepared by Mr. William Priddle, the company's architect.

Sir Aston Webb, P.R.A., has been commissioned, states the "Industrial Daily News," to design the new buildings for the Wesleyan College at Cambridge University, which was founded last year. A fund of £66,000 is already available, and it is hoped to secure a further £22,000 to complete the £40,000 required for endowment.

Mr. James M. D. Henderson, A.R.I.B.A., M.S.A., 1 Holmston Road, Ayr, the winner of the first prize of £300 offered by the "Daily Mail" for the best design of a bungalow on the labour-saving principle, died from acute pneumonia on November 21 at the County Hospital after three days' illness. He was 38 years of age, and acted as first assistant in the Burgh Surveyor's office in Ayr.

Diaries, Calendars, &c.

The Architects' and Surveyors' Assistants' Professional Union, 36 Victoria Street, Westminster, S.W., have adopted an excellent means of propaganda in the production of a practical pocket diary. Its contents are thus summarised on the title-page : "Particulars of entry to the leading professional bodies, training centres, scholarships and prizes ; list of the latest publications ; technical memoranda ; surveyors' tables, and a variety of other useful information." The diary portion is of a workable size, two pages being devoted to each week, and ends up with pages ruled for a monthly cash account.

R. G. Spiller, building contractor of Chard, Sherborne and Taunton, has had the happy thought of inviting an artist to aid in the design of an artistic wall calendar. As a showcard it answers its purpose well because it gives simple sketches of two architect-designed houses, each erected by the firm in four months ; and as an adornment it succeeds because the sketches are well done by Mr. Joseph Pike, a draughtsman whose work is steadily gaining friends in the profession.

The National Master Builders Year Book and Diary is sold at the "Master Builder" Offices, 84 Leadenhall Street, E.C., at 3s. 6d., post free. Intended for serious office use, it gives generous diary spacing for working days. The seventy-odd pages preceding the diary include a considerable amount of trade information, such as company liquidations and bankruptcy receiving orders and trade law cases for the year, building trade associations, conspicuous building men (among whom Mr. Paul Waterhouse, P.R.I.B.A., appears), and selected contracts.

Messrs. Tuke & Bell, Ltd., 27 Lincoln's Inn Fields, W.C.2, and Lichfield, show on the face of their calendar photographs of five sewage installations. The firm are prepared either to carry out such work complete themselves or to supply drawings and apparatus for the local builder to construct. On the back of the calendar is a selection of photographs showing municipal vehicles, both motor and horse-drawn, built to their designs, as well as of the Barnsley mechanical water filters and of two 100-gallon ejectors as fixed for the City of York.

Wm. Duncan Tucker & Sons, Ltd., Lawrence Road, Tottenham, N.15, have illustrated their calendar with a design which would make an effective exhibition stand and which is appropriate to a firm of joinery manufacturers who can claim to possess one of the largest and best-equipped joinery works in England. Messrs. Duncan Tucker have been established for more than ninety years, and are abundantly justified in saying "Architects do not hesitate to specify or recommend us. Builders entrust work to us with confidence."

Trade Notes.

Boyle's latest patent "Air-Pump" ventilators have been applied to the Central Hall, Westminster, London, supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

On Friday, December 22, at the Town Hall, Leamington, the employees of Messrs. Sidney Flavel & Co., Ltd., were entertained by Mr. Percival Flavel, J.P., the managing director. The chairman's health was proposed by Mr. Thomas Sanderson, who has been associated with the firm for 53 years ; and amongst several interesting reminiscences, he referred to the fact that he had known three generations, and that Mr. Percival was the fifth Flavel in the business, and also noted in passing that the business had, in recent years, increased four times in size. There were between seven and eight hundred guests present, and from 8 o'clock till 10 they all very much appreciated a splendid musical programme, and from 10 till past midnight a most enjoyable dance was held.

Messrs. Cafferata & Co., Ltd., were registered on December 16 as a private company with a capital of £150,000 in £1 shares (90,000 cumulative preference and 60,000 ordinary), to take over the business of plaster, cement and brick manufacturers carried on by L. W. Cafferata, H. M. Cafferata and R. B. Cafferata at Newark-on-Trent and elsewhere in the county of Nottingham. First directors : L. W. Cafferata (managing director), Westfield House, Farndon, Newark, Notts (director of Xelite Plaster Co., Ltd., and Pure Bone Phosphates Chemical Co.) ; H. M. Cafferata, The Grange, Sutton-on-Trent (director of Pure Bone Phosphates Chemical Co.) ; R. B. Cafferata, The Cottage, Newark-on-Trent (director, Pure Bone Phosphates Chemical Co.) ; B. J. Cafferata, 41 Winchelsea Avenue, Newark ; C. F. Cafferata, 41 Winchelsea Avenue, Newark. The first three named are permanent. Qualification, 1,000 shares. Registered office, Beacon Hill, Newark-on-Trent, Notts.

An Enterprising Company.

This photograph, taken at the works of Rownson, Drew & Clydesdale, Ltd., near King's Cross, London, on December 20, shows part of the fleet of motor-cars used by the company's travellers covering the whole of England and Scotland.

These cars are fitted with specially designed trays, carrying samples of special lines run by the firm in connection with the building and allied trades, and also special innovations of interest to the sports trade, and it is claimed that the assortment is more up-to-date and complete than is continuously carried by any other travellers in the trades mentioned.

The reorganisation of the company's business due to the clearance of Government stocks, which has occupied the full energies of all concerned for a long time, has been undertaken by Mr. Donald (managing director), and he has given a series of lectures to branch managers and travellers on the sales policy to be observed during the coming year.

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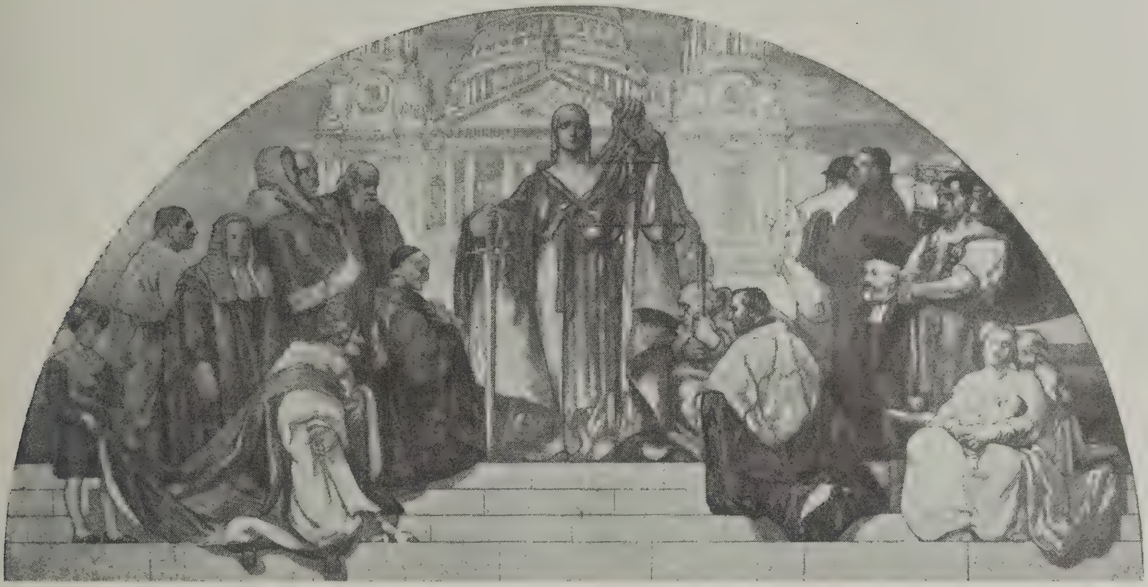

"JUSTICE," ONE OF THE LUNETTES AT THE CENTRAL CRIMINAL COURT. By Gerald Moira

The Art of Gerald Moira *

It is useful to all interested in art, and especially to architects, to have, in the compass of a book, so good a collection of the work of Gerald Moira. As Mr. Watkins says, it is fair to assume that his Portuguese and Spanish ancestry may partly account for Moira's love of rich colouring, while his power of composing form places him with Brangwyn in an unequalled position of eminence among decorative artists of the age. The book gives a series of reproductions of his works in a general chronological order, commencing with his Trocadero frieze and ceilings at Lloyds Registry, which lead up to his great lunettes in the Central Criminal Court representing "Justice," "Mosaic Law," and "English Law," which are generally considered to be his finest work. The remainder of the illustrations include his smaller works in the decoration of ships, the ceiling of the Unitarian Chapel at Liverpool, and a selection from his easel pictures, and his post-war decorative schemes.

The lunettes at the Central Criminal Court are dignified, solemn, and impressive, and absolutely in keeping with the associations of the building with which they are connected.

It is curious and notable that among the work shown several of the pictures illustrated are more perfect examples of decorative art than even the decorative panels and lunettes. We would instance, as examples, "A July Summer Day" (Plate 19), as being the most perfect instance of decorative composition, though the dresses and adjuncts are entirely modern; "The Cornish Floral Dance," an impressionistic representation of an old custom; and "London" (Plate 18). Though all of these are easel pictures they seem to us greater decorative achievements than any of the other work shown, which may be because the artist felt he was liberated from some of his self-imposed standards; but what the book shows is that the quality of Moira's work is maintained at an exceptionally high level and cannot be divided into categories of unequal achievement. In his notes on decorative art it is evident that he feels—and, we think, somewhat unreasonably—the fettering influences of contemporary architecture. We agree with him that much of the work of the times is deficient, but we do not agree with him that similar deficiencies are not as abundantly shown in the work of our painters, nor do we think that the reasons for the faults are those that he states: "We have no architecture to-day. When an architect talks of following tradition he means being traditional. On the other hand, when a serious painter talks of tradition he means adding his interpretation of nature to the interpretation of nature of the men of the past," and "whereas to-day the painter begins his real education in art from nature, the architect begins his with archæology, with studying the orders and making full size drawings of Greek caps, and so on, instead of getting down to the hard facts of plan construction." With all respect to Mr. Moira, this is nonsense. Painters, like architects, must necessarily be influenced by the achievements of those who have preceded them in the special realm of art they are practising. If Mr. Moira had been divorced from this knowledge and had simply studied nature, his painting would not be what it is. Here and there in his compositions we can see traces of the influence of the Italian masters of his art, just in the same manner that one sees in the architecture of the day the influence of earlier historical work. How could it be otherwise? How could an architect

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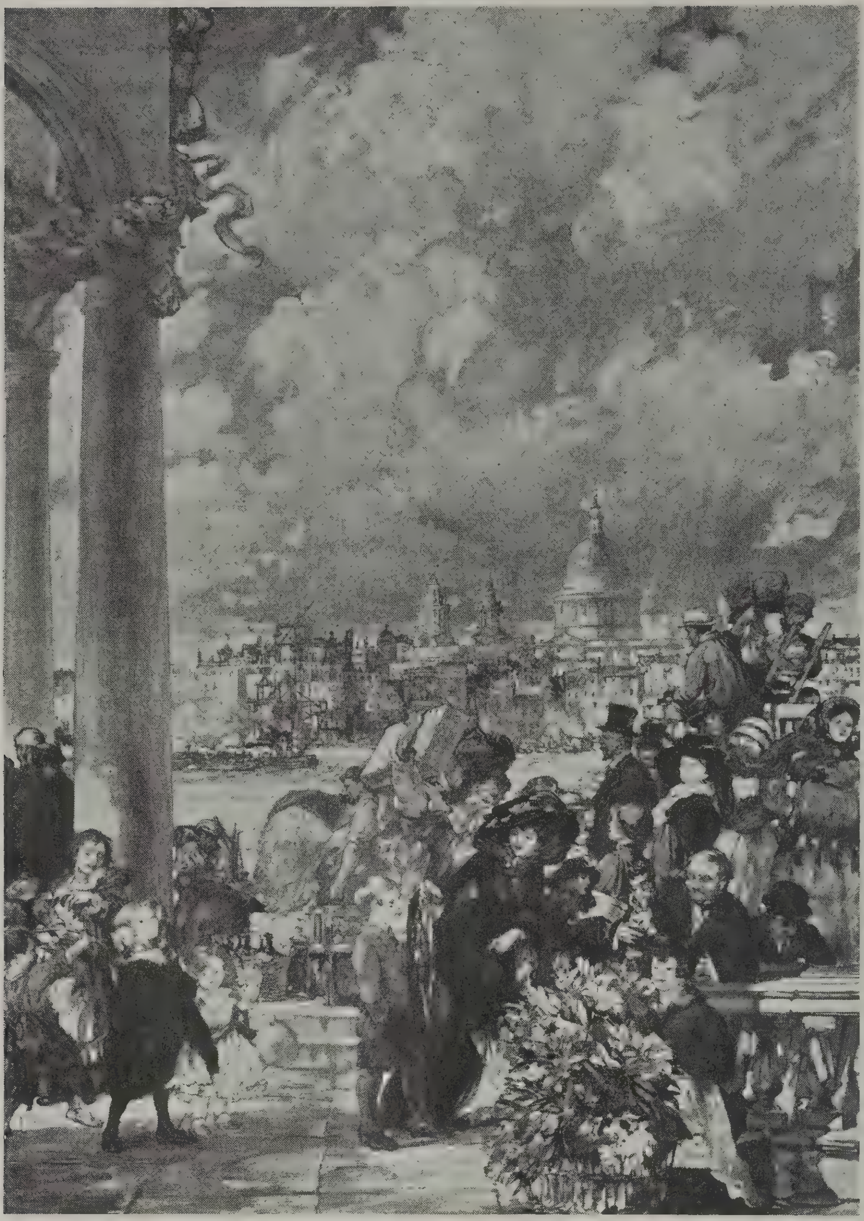
* "The Art of Gerald Moira," by Harold Watkins, with Some Notes and Thoughts on Decorative Art by Gerald Moira. E. W. Dickens, 371-373, City Road, London, E.C. 21s. net.



"LONDON." By Gerald Moira.

follow tradition without being traditional? If pictorial art is founded in the study of nature is it less reasonable that architectural art, which has nothing to do with nature, should be based on the study of the proportions and compositions of those who worked previously? Mr. Moira, like many other critics, is probably under the impression that an architect should invent new mouldings and build up with them a new style, whereas the conviction of thinking architects of to-day is that such matters are relatively unimportant as compared with the study of mass and composition, a study which is more likely to have good results if we are using a means of expression which form a language familiar to us. In so doing we are following the precedent set in every age by every generation of architects. There is almost no example of the deliberate attempt to do any fresh thing in the history of art except that of the originators of the Louis XV. style, who certainly did in a field of decoration invent minor details which were new, and the bizarre attempts of the exponents of "L'Art Nouveau," in our own times, who have added senseless atrocities to Continental architecture and who may be classed with the Cubists and Post Impressionists in painting. We admit that there is in our midst a small school of architects who are too archæologically minded and have allowed their admiration for Greek architecture to lead them astray till they erect in some provincial English town a dull replica of a Greek façade. But these men do not represent English architecture of to-day, but its "left group," and there is evidence that they are not adding to the number of their followers, but are once more losing ground and influence.

There has been no period in which "the hard facts of plan construction" have received more careful and thorough study, and few important building schemes in which this fact is not impressed on us. At no time in the history of our art has planning reached such a consistently high level, for our best designers have combined the lessons of stately and symmetrical Roman and Renaissance planning with the complicated and intricate mastery of detail required by modern conditions. This result, produced by the best designers of the day, is gradually permeating the whole of our fraternity, and at the present rate of improvement every educated architect at the end of another fifty years will, as a matter of course, give his clients a very good, if not a perfectly rendered solution of the problem set to him. If we have not achieved equal success in dealing with the æsthetic problems involved in the design of buildings every room in which has to be conveniently arranged and adequately lighted, even

"A JULY SUMMER DAY." By GERALD MOIRA.

at a sacrifice of æsthetic considerations, whereas such considerations were formerly considered immaterial, we have an adequate explanation for our failure to completely satisfy critics who give no thought to such points.

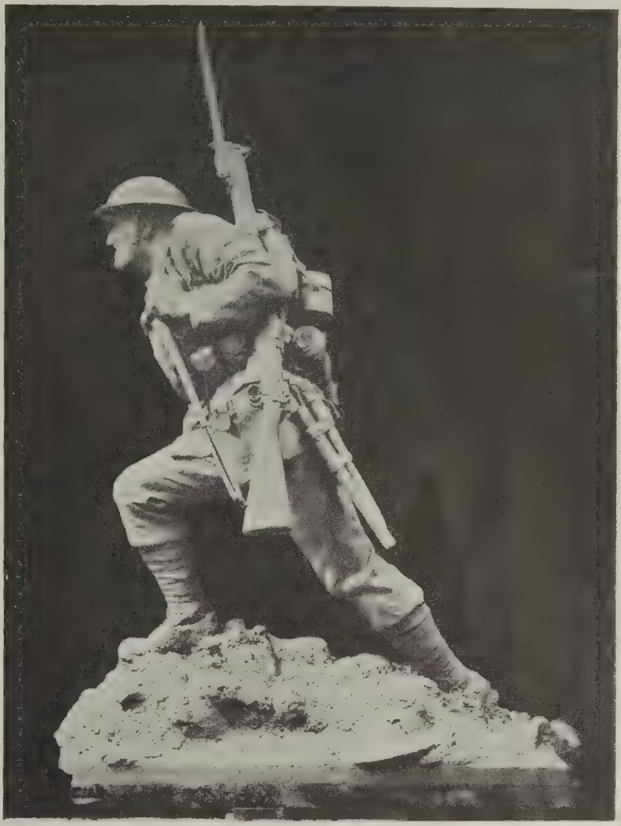
The composition of some of the more recent American skyscrapers are æsthetic successes in a new field of design which are not less because their architects have used modifications of mediæval detail in their crowning features instead of "inventing" something fresh. The work of Mr. Gilbert Scott in England and Mr. Bertram Goodhue in America, cannot be described as being weighted down with archæology, nor can we accuse the architects of hundreds of fine buildings, both here and in America, of similar faults.

In a word, we are, if anything, in advance of decorative painters rather than following ineffectively behind them. They, unfettered by practical requirements, and in contact with nature, should show by their own work what they mean instead of ineffectively criticising our methods. It is we and not they who are handicapped by the rapidly advancing intricacy of our task. We and not they are showing in the work of to-day that we are abreast of the requirements of the age in which we are both living.

"THE CORNISH FLORAL DANCE." By GERALD MOIRA.

Southwark Memorial.

The Southwark Memorial is the work of Capt. P. Lindsey Clark, D.S.O., R.B.S., the action indicated in the figure being quite a new departure from that of other memorials of a similar nature. The same sculptor is at present engaged on the Cameronians' War Memorial to be erected in Glasgow. The former was recently unveiled by General Lord Horne.



Whitgift Hospital, Croydon.

The Mayor of Croydon recently received the following letter from the Secretary of the Royal Commission on Historical Monuments:

The Chairman of this Commission, the Earl of Plymouth, desires me to say that it has been brought to his notice that the beautiful Whitgift Hospital in your borough is again in some danger of mutilation or destruction owing to proposals for street widenings at this point.

The investigations of this Commission have now reached the London district, and I am to inform you that the hospital in question will undoubtedly be scheduled by the Commission among the monuments most worthy of preservation.

I am therefore to ask you to use your utmost endeavour to see that so noble a monument is preserved intact, and that if possible an alternative route may be adopted or a widening effected on the opposite side of the street in order to relieve the great congestion of traffic which at present exists.

Lord Plymouth and his fellow Commissioners will be glad to hear from you that the danger to the hospital is neither so serious nor so imminent as they have been led to suppose.

The Office of Works has presented to the Royal Institute of British Architects a piece of timber from the roof of Westminster Hall.

Birmingham City Council have invited builders to make application to tender for the erection of 212 houses on the Billesley Estate at Yardley Wood. The dwellings will be of the non-parlour type, and will be erected under five contracts.

The Newcastle Housing Committee have instructed the architect to obtain prices for the completion of certain sections of the Walker housing estate, representing an addition of 182 houses. On that estate there are 776 houses built or in progress, including 98 for which tenders have recently been accepted.

Lord and Lady Cowdray have approved of the plans prepared by Mr. A. Marshall Mackenzie, R.S.A., LL.D., for a hall and additional accommodation in Aberdeen Art Gallery and the erection of a War Memorial Court, and state that the scheme appears to them to be as fine a scheme as can be devised. Lord and Lady Cowdray are providing a hall and art museum representing £20,000 of the total estimated cost of the scheme of £66,000

Notes and Comments.

The National Housing and Town Planning Council.

The fortnightly record issued by the National Housing and Town Planning Council can only be explained on the assumption that those who write it are ignorant of what is going on around them. They state that the housing question will occupy a leading place in the next session of Parliament and that a majority of members of the new House are in favour of a "comprehensive long run housing policy" which the Labour members are pledged to see through. We know that the Labour members are pledged not only to this but to a long list of Socialistic measures, including a capital levy, but does anyone suppose that these are dominating and controlling factors of the situation?

On the other hand, the Government has clearly and specifically expressed its determination to leave housing, other than the clearance of insanitary areas to private enterprise, and to consider means by which advances may be made under conditions to private builders. In this determination they have the great bulk of the electors behind them, for they have had actual proof of the expensive and useless pitfalls connected with the Addisonian experiment. Is there any use in flogging not merely a dead but a decaying horse? The voice of the so-called National Housing Council is that of one crying in the wilderness, and its exponents would place themselves in a better position were they to recognise facts.

"For this Relief, Much Thanks."

We learn with a sense of relief that a certain enterprising outfitter's premises, not many miles from the Tottenham Court Road corner of New Oxford Street, is to be demolished. The building in question is a commonplace Victorian erection, but the structure itself is not our *bête noire*; it is a question of external sculpture. In a prominent position, high up, are a number of figures of various degrees of obesity clad in the triumphs of the outfitters' art. We have sometimes wondered what the intelligent foreigner would think of these, especially after he had read an eloquent article of the value of sculpture in our public streets. Would he take these figures as representing the standard of educated taste here, or English love for sculpture, or the love of the Londoner for the adornment of public places? We hope the figures in question may be either destroyed or relegated to the Chamber of Horrors at Madame Tussauds. But is it not time that our public authorities should exercise some control over such matters?

Another Point of View.

We are told that when Lord Kelvin visited Niagara he was not so much impressed by its wonders as saddened by the spectacle of so much energy going to waste. It has been estimated that 5,000,000 horse-power is now unutilised, which at £10 a year per horse-power—the cost of energy of a large steam plant in New York—would represent £50,000,000 a year, or, put into other terms, a waste of 250,000 loaves of bread in an hour or the destruction of a large departmental store in every single day. We should not like to think of Niagara as being cribbed, cabined and confined for purely industrial purposes, but such figures as we have quoted are rather staggering. Great as is the economic waste exemplified, it is probably nothing to the waste which goes on daily in the lives of mankind. The waste involved in useless schemes foredoomed to failure, the unnecessary waste of time and money in ineffective and expensive transportation, the waste of products insufficiently utilised, and the waste of brain power used for abortive ends—all this has struck Mr. H. G. Wells, who has well expressed it in many of his books in describing the muddle in which our lives are spent.

We look on town planning as a means whereby in the future, if we are wise in our generation, avoidable waste may be eliminated, to the great advantage of those who come after.

Direct Labour.

According to a local paper, Glasgow has added to the number of disastrous experiments which have been made by attempting to eliminate the principle of contracting for public works. Our contemporary states that—

> The Labour candidates at the recent election advocated the carrying out of public work by direct labour, and several of them made public statements to the effect that the Corporation are saving £20,000 by executing the work at Drumoyne housing scheme themselves. As this scheme is far from completion, one would like to know where they got their information. Bailie Morton, convenor of the Housing Committee, at a recent Council meeting, stated, in reply to a question, that he had no figures to put before them. As a matter of fact, it will be well on in 1923 before figures are available. What the Housing Committee do know is that in comparison with Craigton housing scheme, executed at the same time by private tender, the tenders are not any cheaper, in spite of the fact that at Craigton the houses are built of stone as against brick in the Drumoyne scheme.
>
> Those who are advocating the municipalisation of our industries would do well to consider the position of the Corporation brickworks at Dalry. The latest figures put before the committee show that, after making allowance for the usual charges, to manufacture bricks is costing the Corporation 9s. 7d. per 1,000 more than the bricks could be purchased for in the open market.

It has been made abundantly clear that there is no good alternative to the principle of ordinary contracting other than one in which labour itself assumes the responsibility of management and acts in the same manner as an ordinary contractor, taking the responsibility connected with giving a fixed price for work to be done.

The Wren Bi-Centenary.

In connection with the Wren Bi-centenary Celebration and the plethora of literature which will accompany it, it would be useful if some competent critic with the requisite architectural knowledge would write a careful analysis of the data connected with the buildings usually attributed to Wren. We think the result of such an analysis would be at one and the same time to reduce their number and to increase the reputation of England's greatest architect by showing that he had little or nothing to do with the design of many buildings attributed to him. In this manner it would probably be found that, in the case of some ten or more of the City churches, he did little more than indicate the sites to be used and then left the actual work to others, giving at most a rough indication of the lines to be followed. No other assumption seems to us to fit in with the facts as we know them, for some of the churches are not only indifferent in design but show no evidence of the genius so clearly displayed in the undoubted work of Wren. We should by such an analysis increase and not diminish the reputation of a great architect.

Self-Help in Building.

The "Manchester Guardian" says that—

> much curiosity has been aroused by a new housing scheme originated by Mr. Ernest Betham, lately regional inspector for the Government housing operations. It is not intended at all as a solution of the housing problem, but as a plan calculated to ease the situation. That is obvious enough in his scheme. It is to help those among the wage-earning classes who have sufficient skill to build a house for themselves by giving them skilled guidance as to plans, designs, and fulfilment of public health requirements.
>
> The houses proposed to be erected are to be of the one-storey bungalow type, and simply-written instructions for every stage of the building are to be supplied with the design by the Housing Development Society. Financial assistance for a two-thirds advance on the "realisable value" of the house can be applied for in the usual way from the Public Works Loan Board, and as the remaining third of the cost usually absorbed by labour will be eliminated the loan should defray expenses, the loan to be repaid by the builder in the form of rent over a period of years.
>
> The scheme is for the bungalows to be erected on the outskirts of the town, twelve to the acre. Mr. Betham states that a group of railwaymen have already sent in their signatures as pioneers in a London building scheme.

This seems to us to be a development on sound lines, as there are many who have sufficient knowledge of building to help themselves if they are guided by the work of those who have what they have not—knowledge and experience in the field of design.

PUMP ROOM ARCADE, BATH.

Mr. Robert Atkinson and His Work.

We give a number of illustrations of Mr. Robert Atkinson's works which are included in the exhibition now being held in Dublin. Mr. Atkinson has achieved fame in a dual capacity, first as the most inspired of modern teachers of architecture, a position which has been amply proved by his administration as head of the Architectural Association School, a position from which he has only recently retired to become its director; and, secondly, as a practising architect of acknowledged excellence and one who is now in the forefront of the profession of which he is a member. As a teacher he possesses the great gift of stimulating enthusiasm and emulation, and no one has ever rendered himself more popular among his younger colleagues. It would be untrue to say that he or any one man is responsible for the extraordinary success of the Association School of Architecture, but he has probably been the greatest of many factors through which it has attained its present position. His habit of plain speaking has been understood and taken without offence by students, who realised his transparent sincerity and candour. They have known and appreciated that he is always ready to recognise merit and to criticise faults on a purely impersonal basis, which has been the chief foundation of his success as a teacher. As a practising architect he has usually secured a position in large competitive schemes, and was one of the selected competitors for the final competition of both the Port of London Offices and the Board of Trade Offices. But his actual work has been that produced first in combination with Mr. Alexander, and, after his untimely death, by himself. A long range of cinema and entertainment buildings stands to his name in Edinburgh, Aberdeen, Brighton, and other great centres. Perhaps the recently completed Regent Cinema at Brighton, illustrations of which we give, is his most notable building in this category. It has been recognised as showing that a type of design usually marked by tawdriness and bad taste can be rendered as architecturally excellent as any other, and that without the sacrifice of any practical requirements.

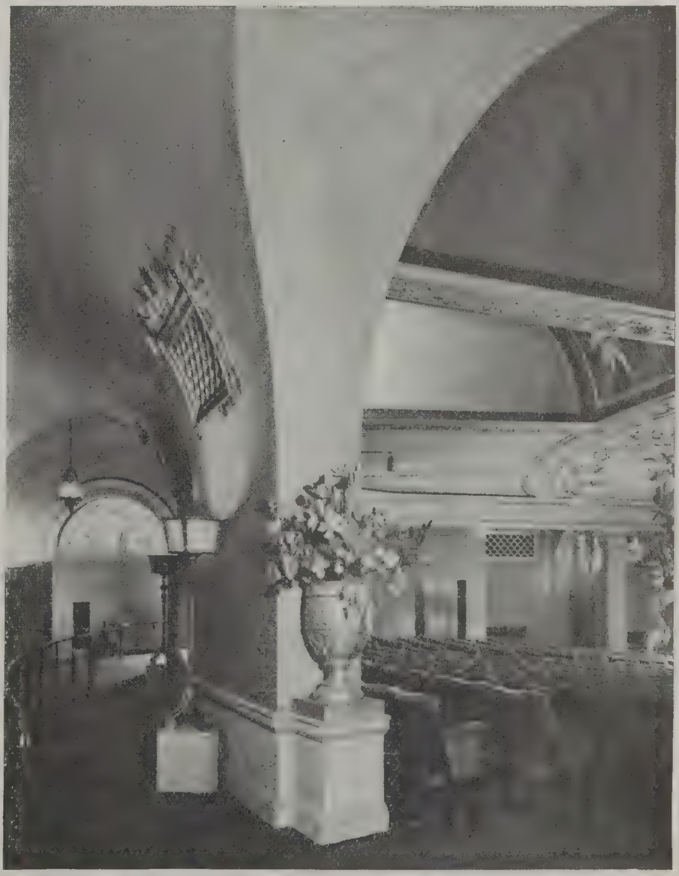
The Corporation of the City of Bath were fortunate in their selection of Mr. Atkinson as an adviser to draw up a scheme whereby the city would be able to compete on equal terms with the great foreign watering places. It is unfortunate that the execution of this fine scheme has been postponed for the present, owing to the consequences of the war, but we hope, in the interests both of Bath and of architecture, it may yet be carried out. Mr. Atkinson's proposals are in perfect keeping with the classic traditions of the city, which have suggested the fine axial planning developments of the scheme, developments which, if carried out, will add emphasis and meaning to Old Bath, and are the outcome of a complete and exhaustive survey of the city and its existing buildings. It is singularly fortunate that Mr. Atkinson has achieved a great position in the world of design at an unusually early age, as it gives us hope that he will add many notable buildings to modern English architecture in the course of his career.

Competition News.

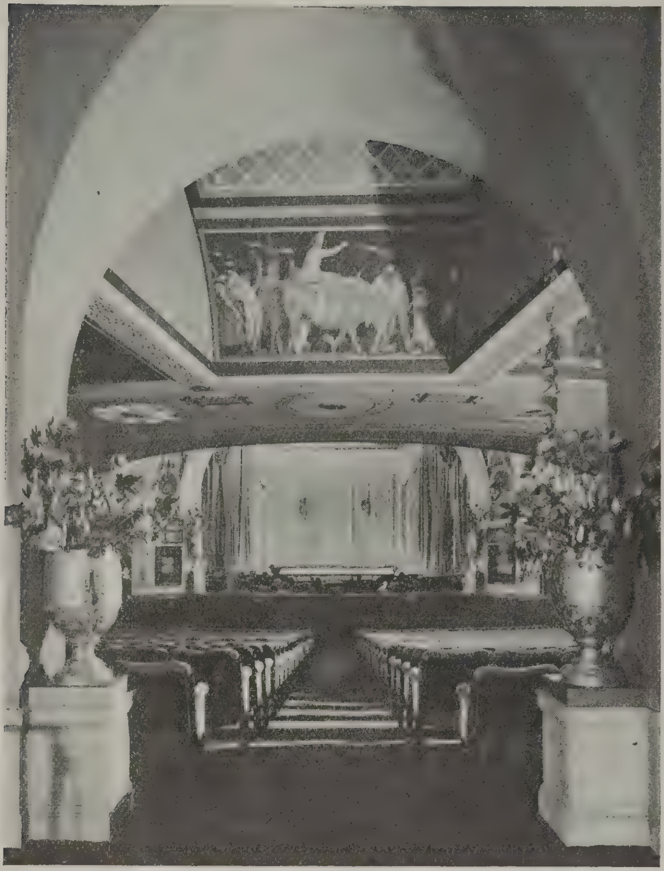
In connection with a series of competitions which it is inaugurating, "The Electrician" publishes the plans of a typical middle class house, and is asking its readers to submit a wiring scheme which will permit all the ordinary domestic operations in it to be performed electrically. The last date upon which schemes can be received is March 29, 1923, and prizes are offered of 25 guineas, 15 guineas, and £5. The provision of a sufficient number of outlets for the use of electrical apparatus is a question to which architects, builders, and others must give close consideration in the future. The competition should produce some interesting and useful ideas for the solution of this important problem.

Selby Golf Links Co., Ltd., invite tenders and designs for the erection of a Club House (250 members), with suitable living accommodation for groundsman. Tenders and designs to be deposited on or before Saturday, the 27th inst., with Mr. S. Brabbs, secretary, James Street, Selby.

A special meeting of the Law and Finance Committee of the Cork Corporation was held last week to arrange the general conditions governing the competitions for designs of the new Town Hall and Municipal Buildings. The competition is limited to architects living or practising in Ireland. Mr. Lucius O'Callaghan, F.R.I.A.I., has been appointed by the Corporation to act as assessor.



REGENT THEATRE, BRIGHTON, AUDITORIUM FOYER.
Robert Atkinson, Architect.



AUDITORIUM FOYER: MAIN THEATRE.
By Robert Atkinson, Architect.

The Regent Cinema at Brighton.

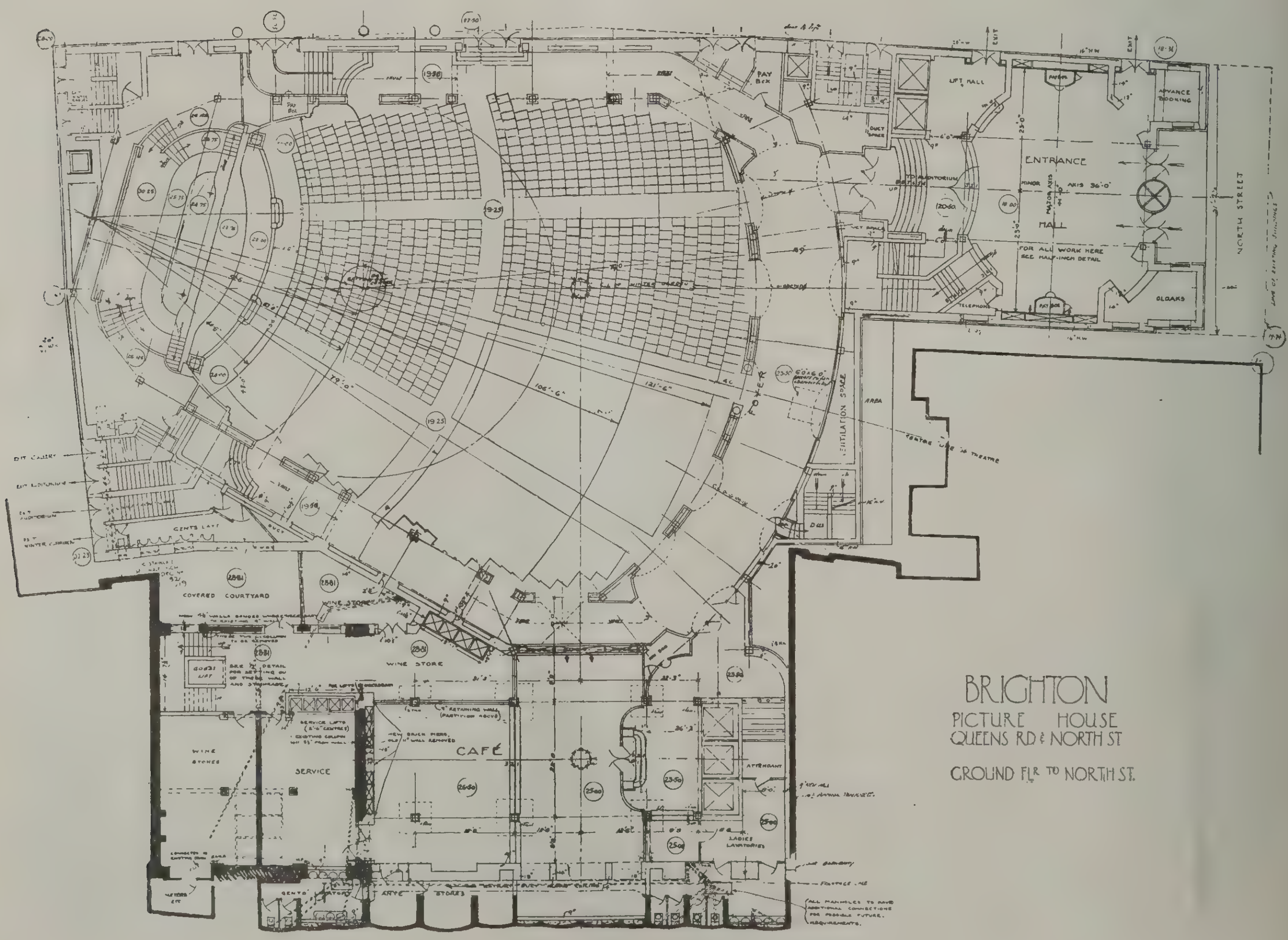
Robert Atkinson, Architect.

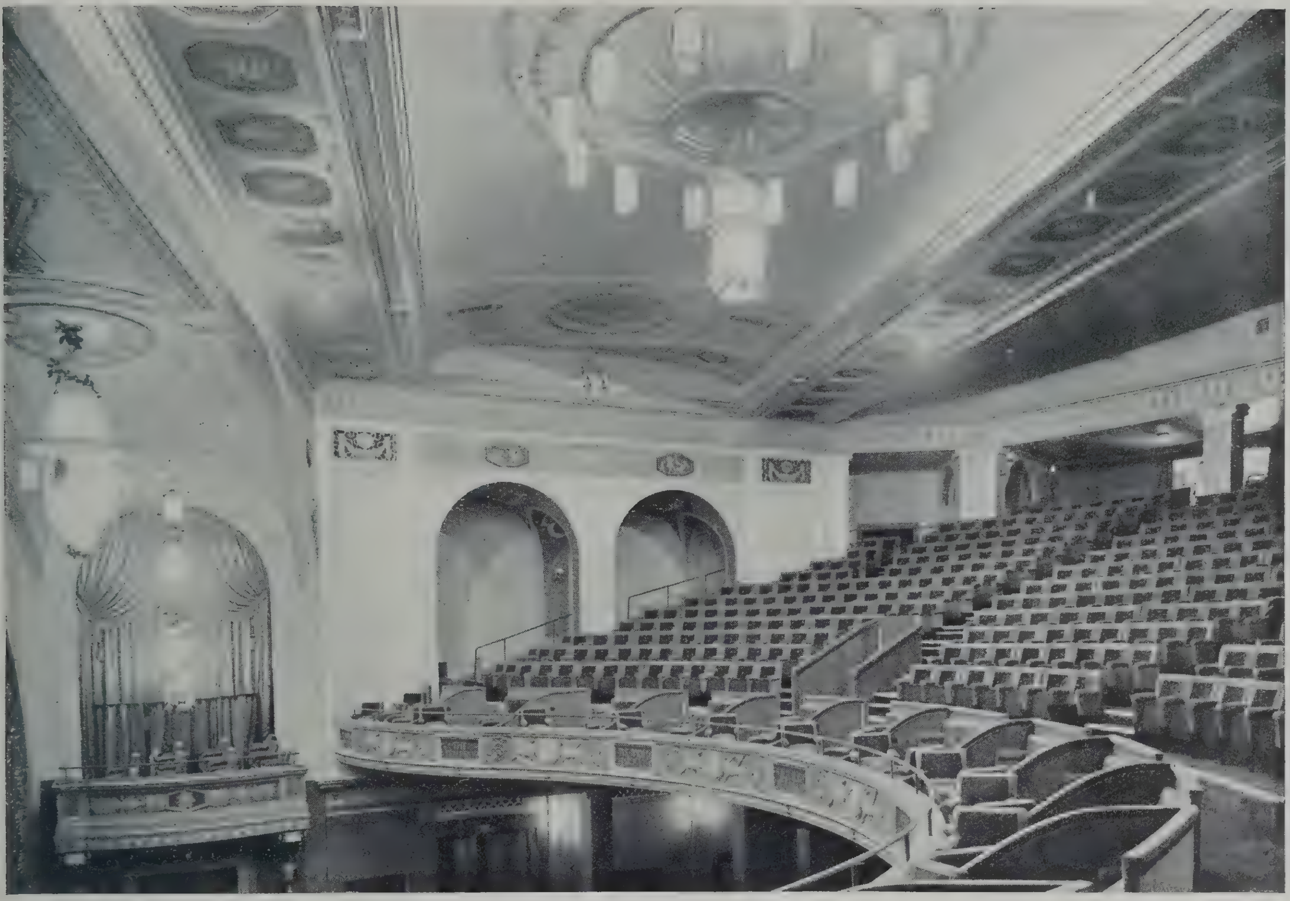
The "Regent," Brighton, is an extremely complex modern entertainment building, embodying in one scheme a theatre which can be used equally effectively for cinematograph, musical, or theatrical entertainments; a first-class restaurant; a winter garden, and various cafés. It is obvious to those who study it in detail that not only has the architect succeeded in achieving a most unique artistic solution of the problem, but, what is much more difficult, he has at the same time utilised the opportunities of the site in the most able manner, thus enabling the enterprise to be a sound financial proposition.

The building, as it is now placed on the site, appears to fit in so naturally that it is difficult to imagine that it could have been arranged otherwise. This solution was decided upon after careful study of all the conditions and careful comparison with numerous other sketches, none of which, however, gave such results as the scheme executed.

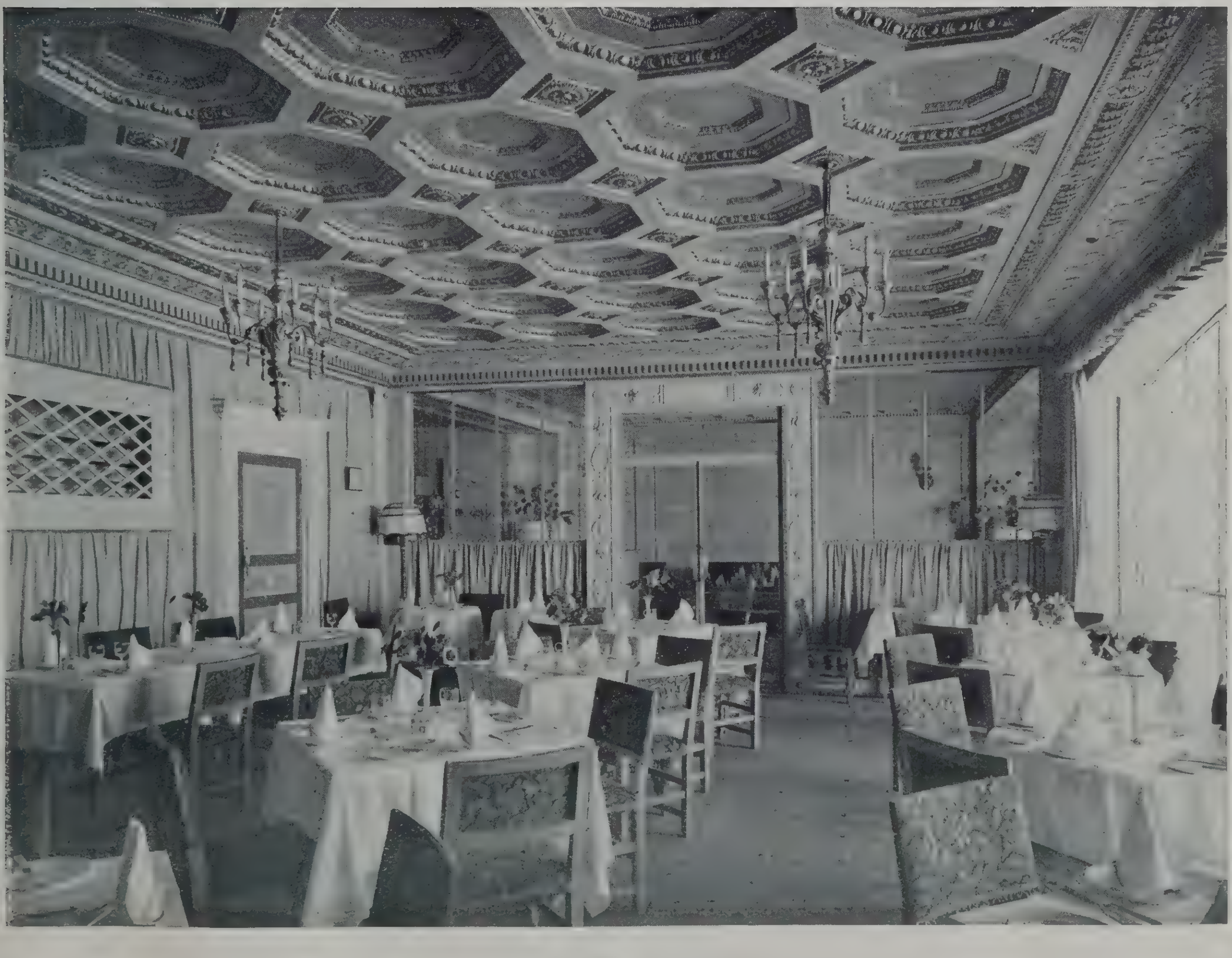
The architect has never lost sight of the fact that he was building for business men, who were responsible for making the undertaking a financial success. Every available foot of space has been utilised; the exits are planned in the most adroit manner in the angles of the site; every seat in the theatre has an absolutely unobstructed view of the picture and stage—to achieve this result some most courageous construction had to be undertaken. The winter garden is really a building on a building, and some of the roof girders carrying it have a span of 100 feet and are 8 feet deep. The gallery is cantilevered out 50 feet from the supporting stanchions.

With regard to the decorations, the vestibule is dignified in the extreme. The Italian restaurant and the Ship Café are finely conceived and executed, but the theatre itself will live in the memory for many years. The colour harmonies of the draperies around the screen are wonderful. Illustrations cannot do justice to the real impression received by a personal visit. Every detail is just a small unit in the complete scheme of colour, and in no way obtrudes itself.





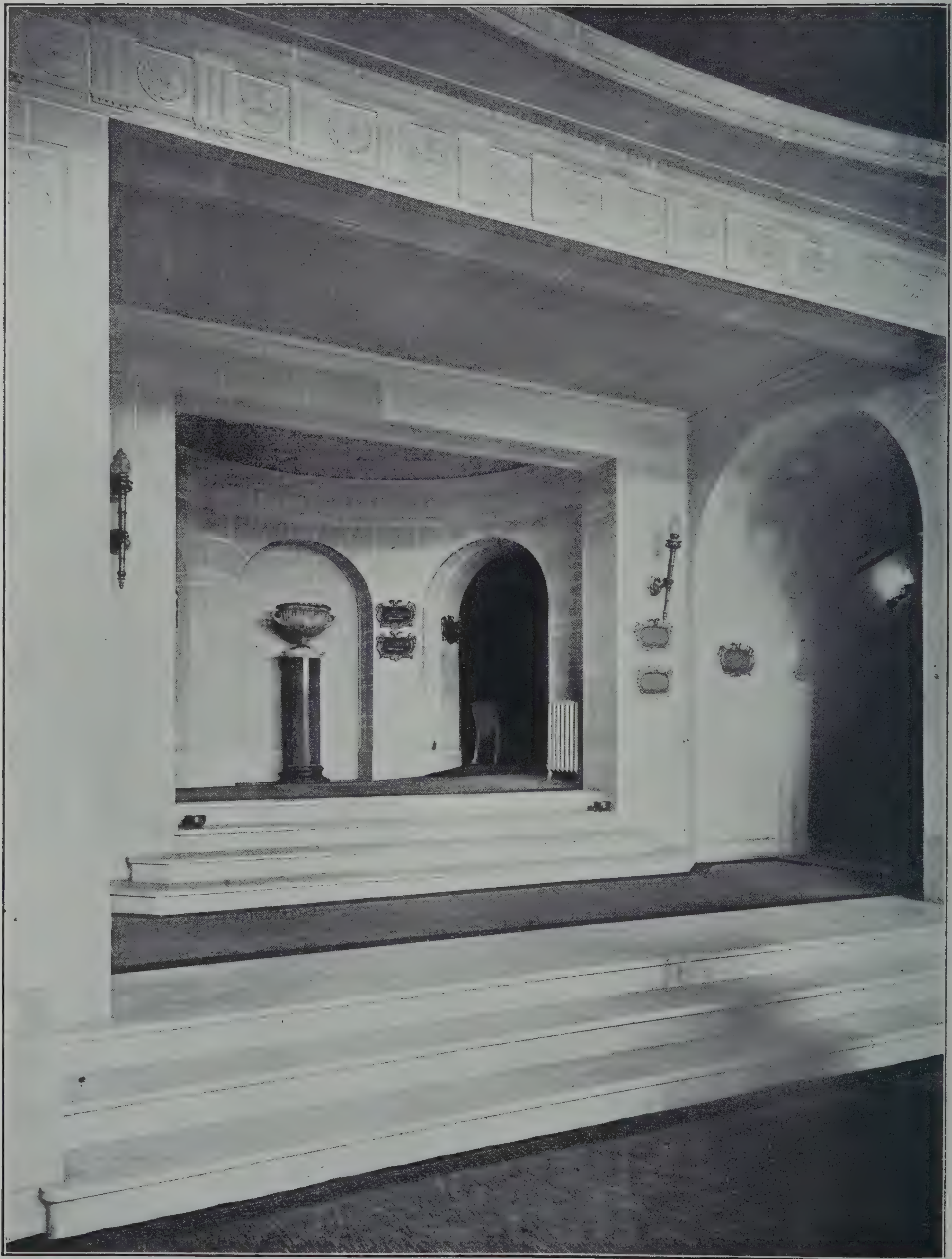
BALCONY.



ITALIAN RESTAURANT.

THE REGENT THEATRE, BRIGHTON.

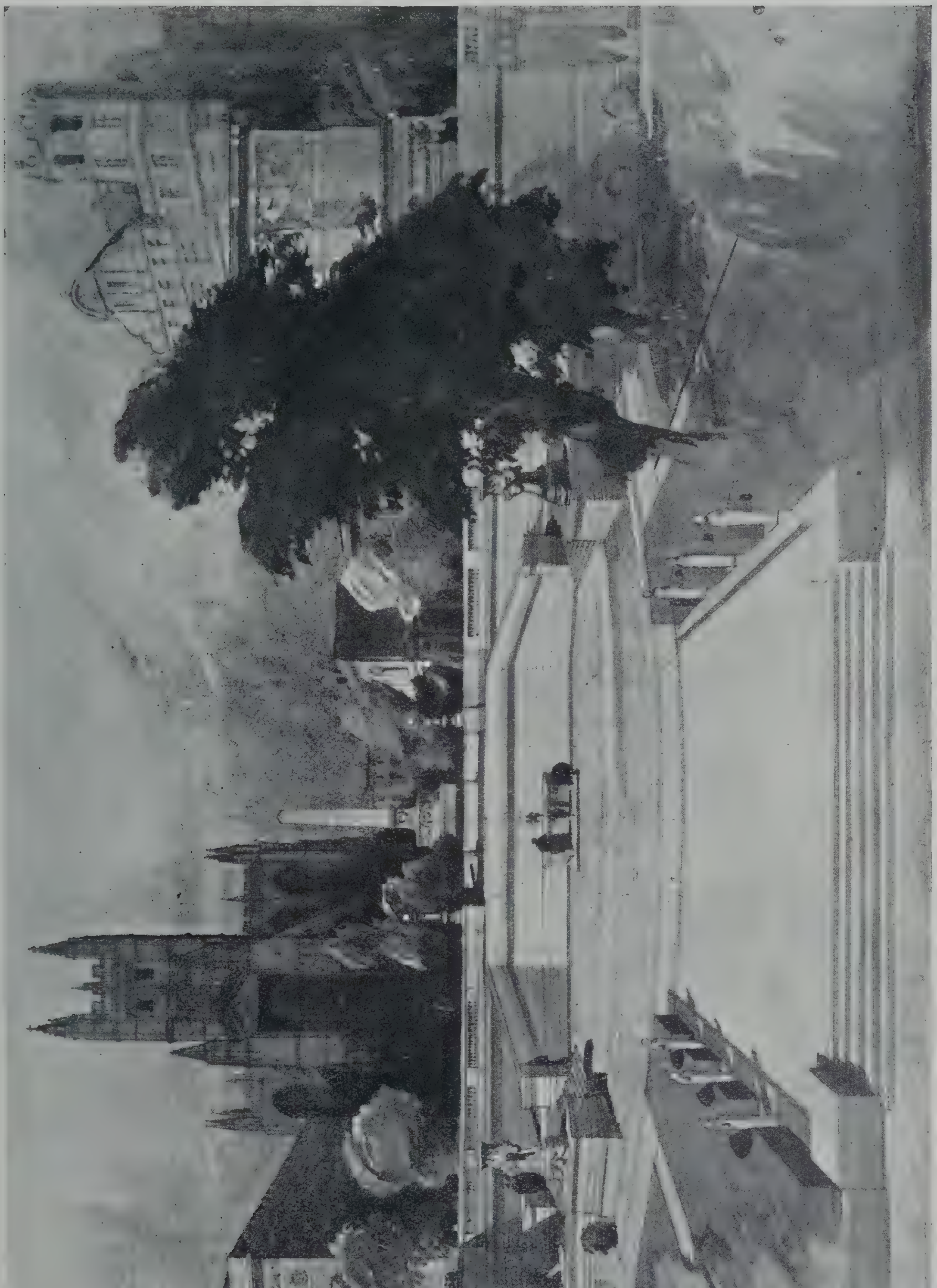
ROBERT ATKINSON, Architct.



VESTIBULE LEADING TO TEA ROOM AND ITALIAN RESTAURANT.

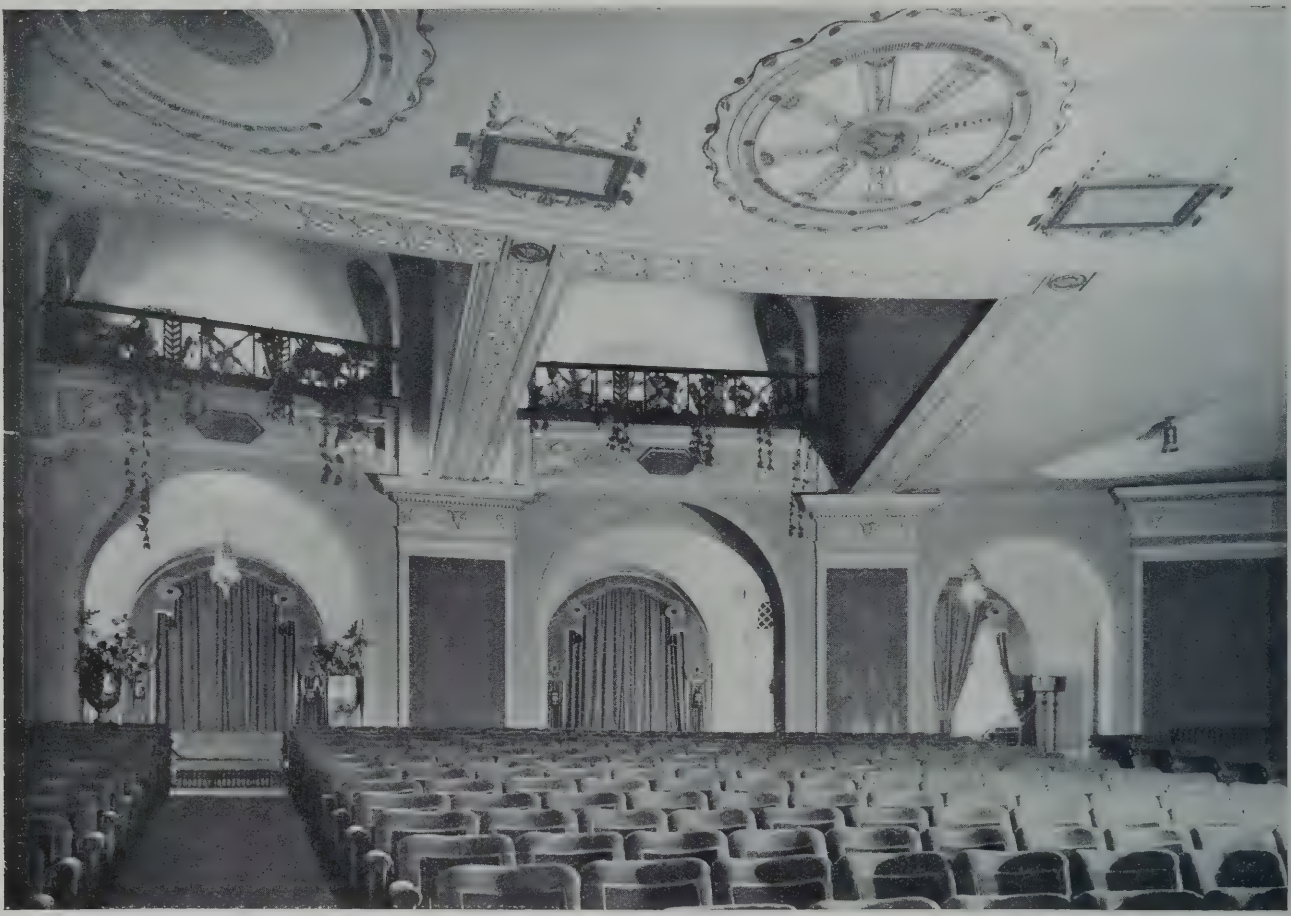
THE REGENT THEATRE, BRIGHTON.

ROBERT ATKINSON, Architect.

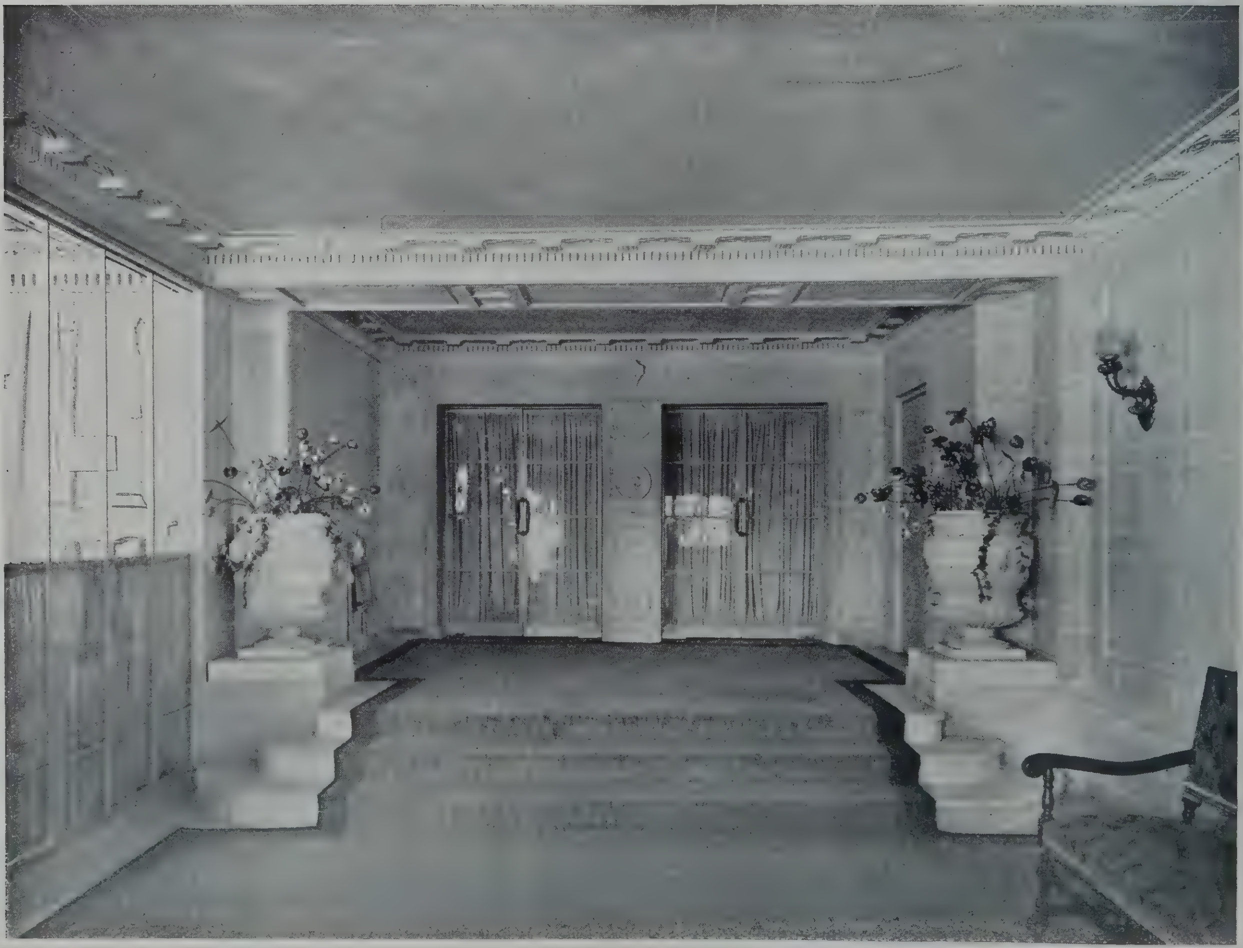


BATH IMPROVEMENT SCHEME: ORANGE GROVE FROM THE RIVER.

ROBERT ATKINSON, ARCHITECT.



BACK OF MAIN THEATRE



ITALIAN RESTAURANT: VESTIBULE LEADING TO GALLERY.

THE REGENT THEATRE, BRIGHTON.

ROBERT ATKINSON, ARCHITECT.

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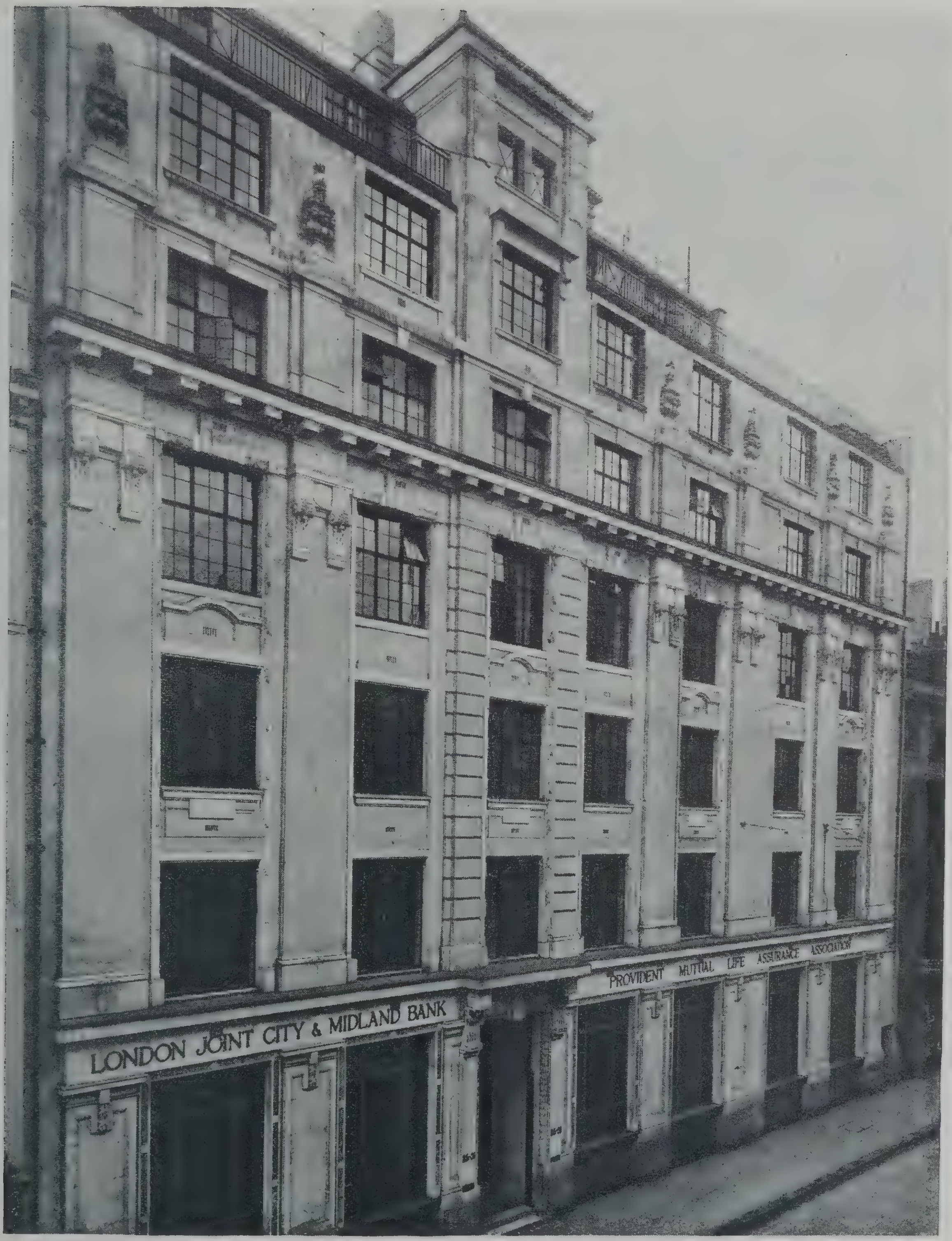
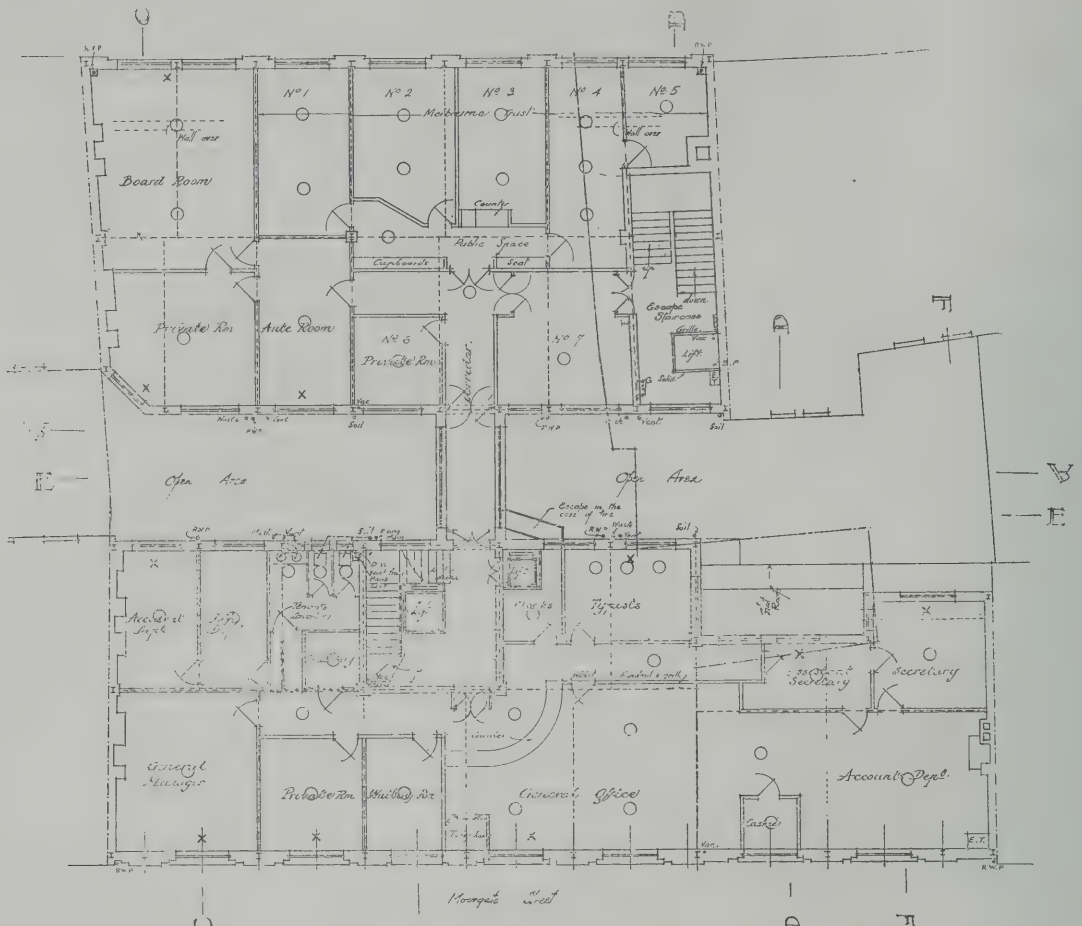

LONDON JOINT CITY & MIDLAND BANK
PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION

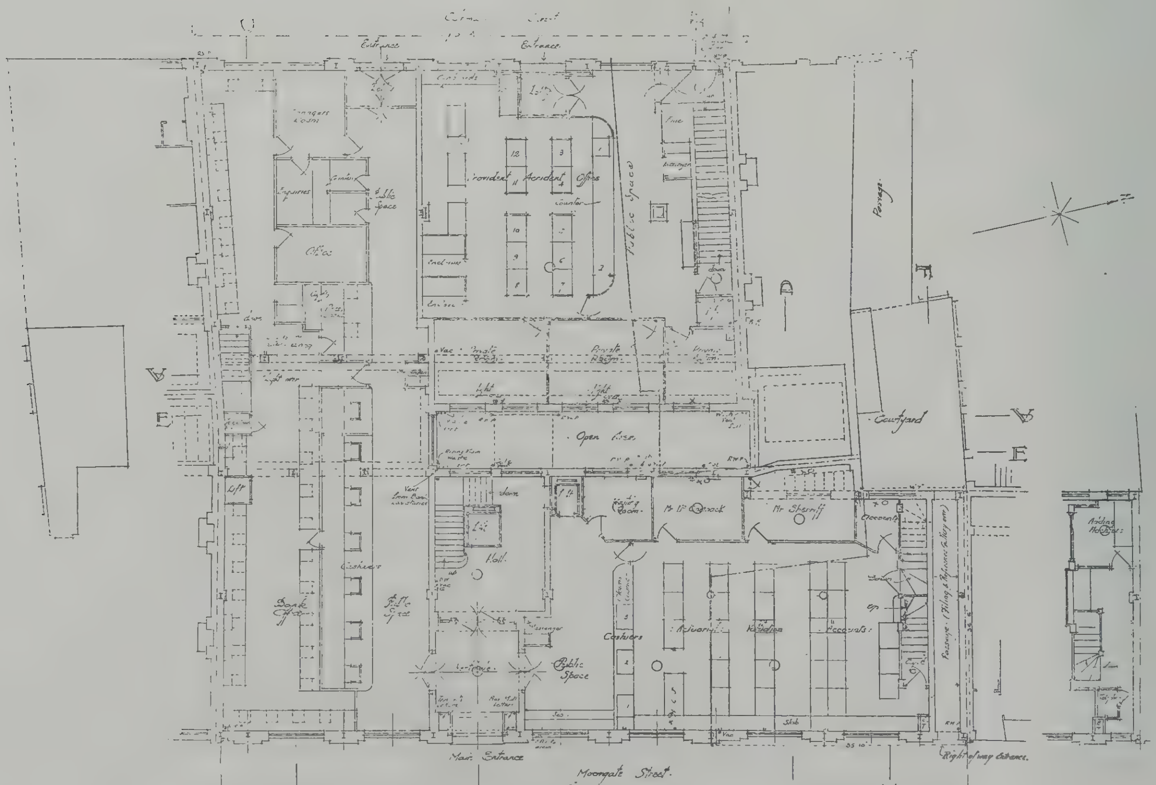
MAIN FAÇADE.

NEW OFFICES, PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION, MOORGATE STREET, E.C.

CAMPBELL JONES, SON & SMITHERS, Architects.



THIRD FLOOR PLAN.

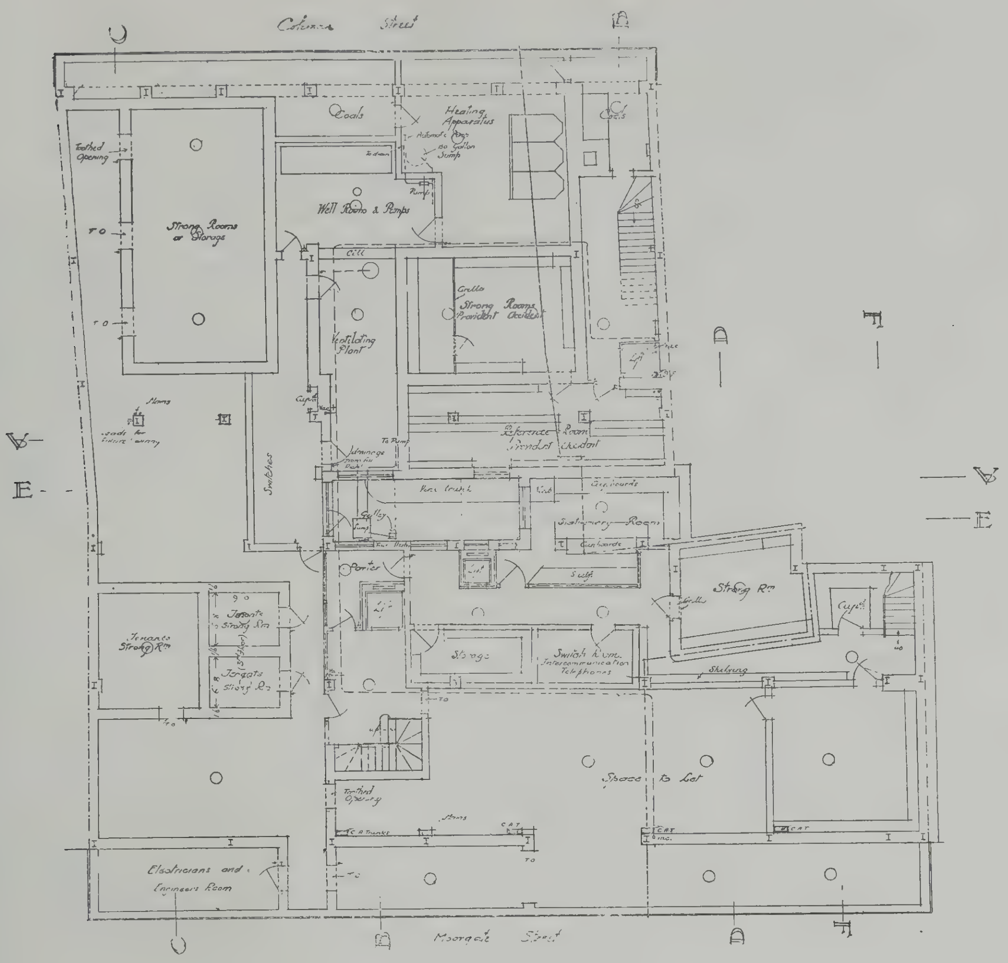


·GROUND·
·FLOOR·PLAN·

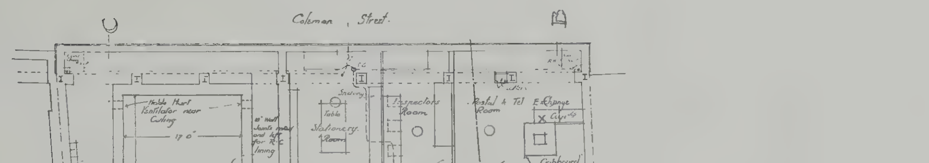
Scale of 10 0 10 20 30 40 50 Feet

NEW OFFICES, PROVIDENT MUTUAL LIFE ASSUR.

CAMPBELL



LOWER BASEMENT PLAN.

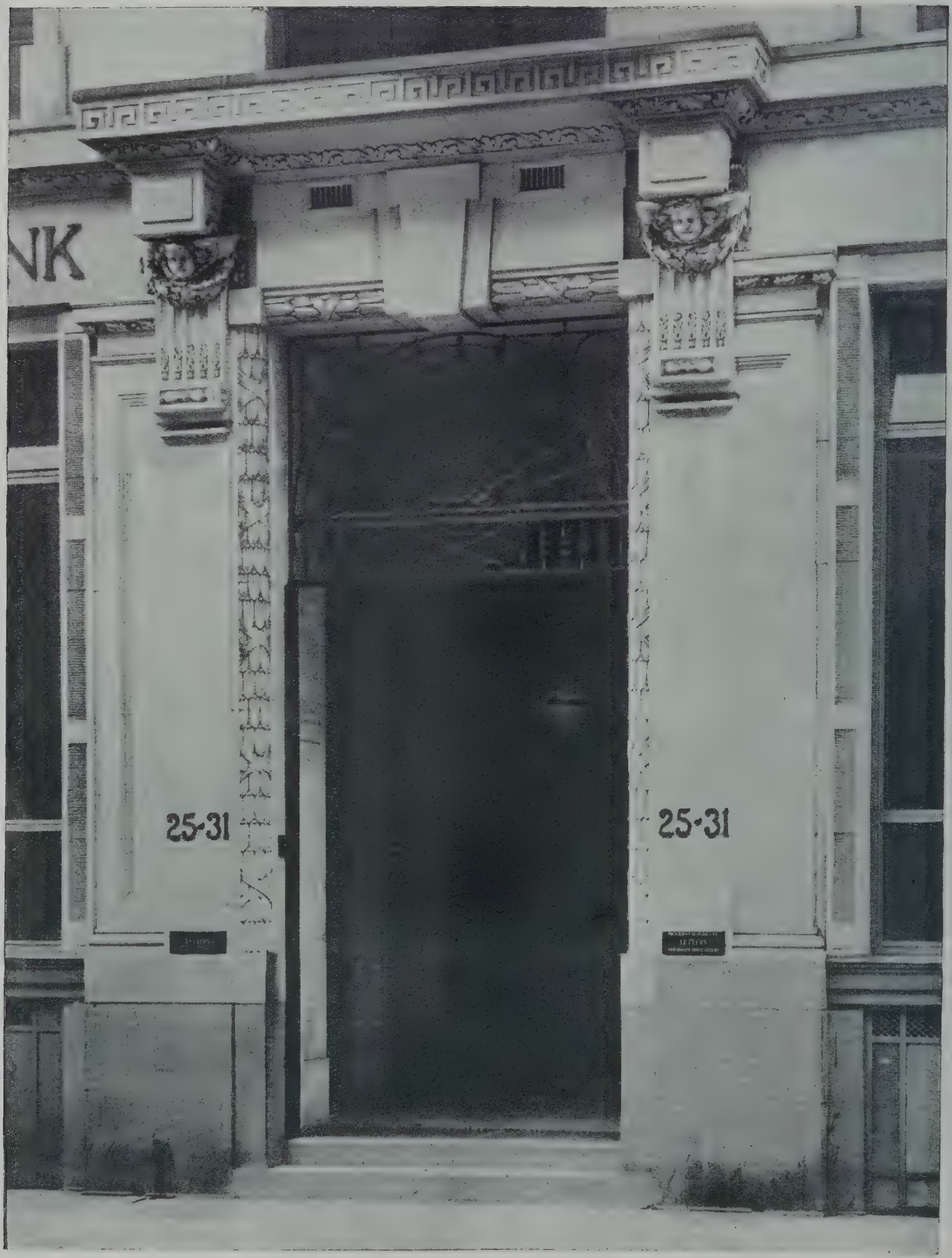


·BASEMENT·
·PLAN·

Scale of 10 0 10 20 30 40 50 Feet

MOORGATE STREET AND COLEMAN STREET, E.C.

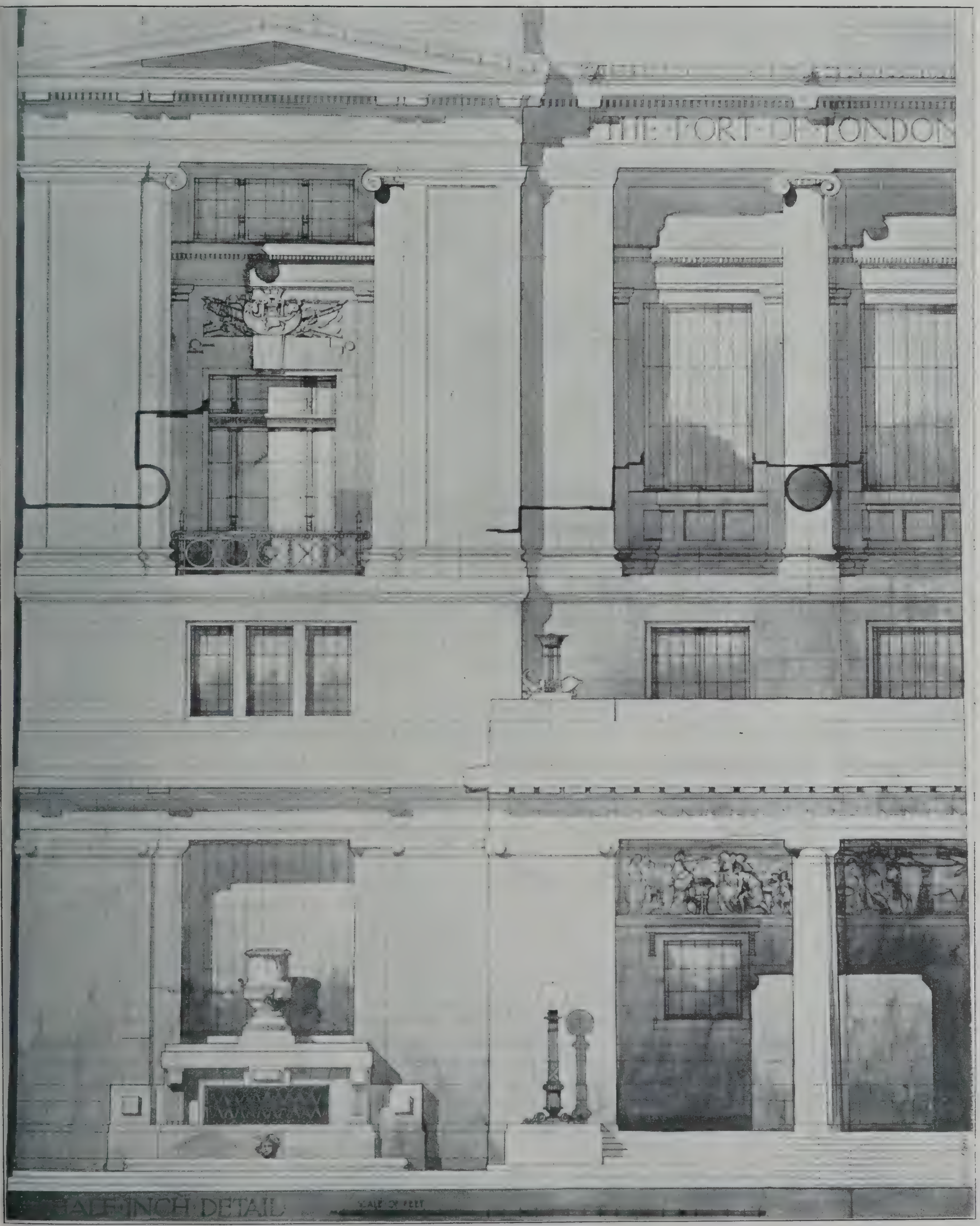
ARCHITECTS.



PRINCIPAL ENTRANCE.

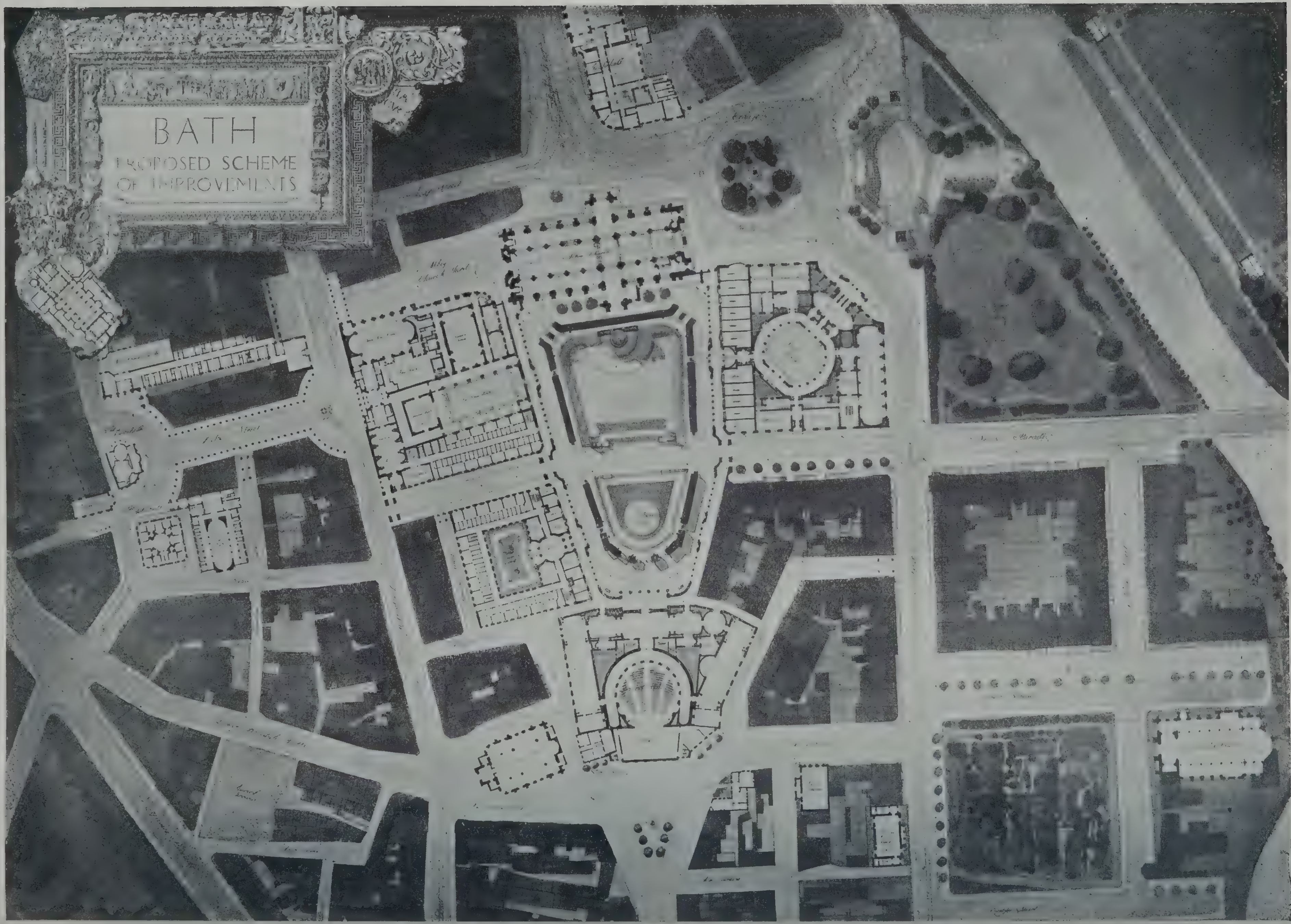
NEW OFFICES, PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION, MOORGATE STREET, E.C.

CAMPBELL JONES, SON & SMITHERS, Architects.

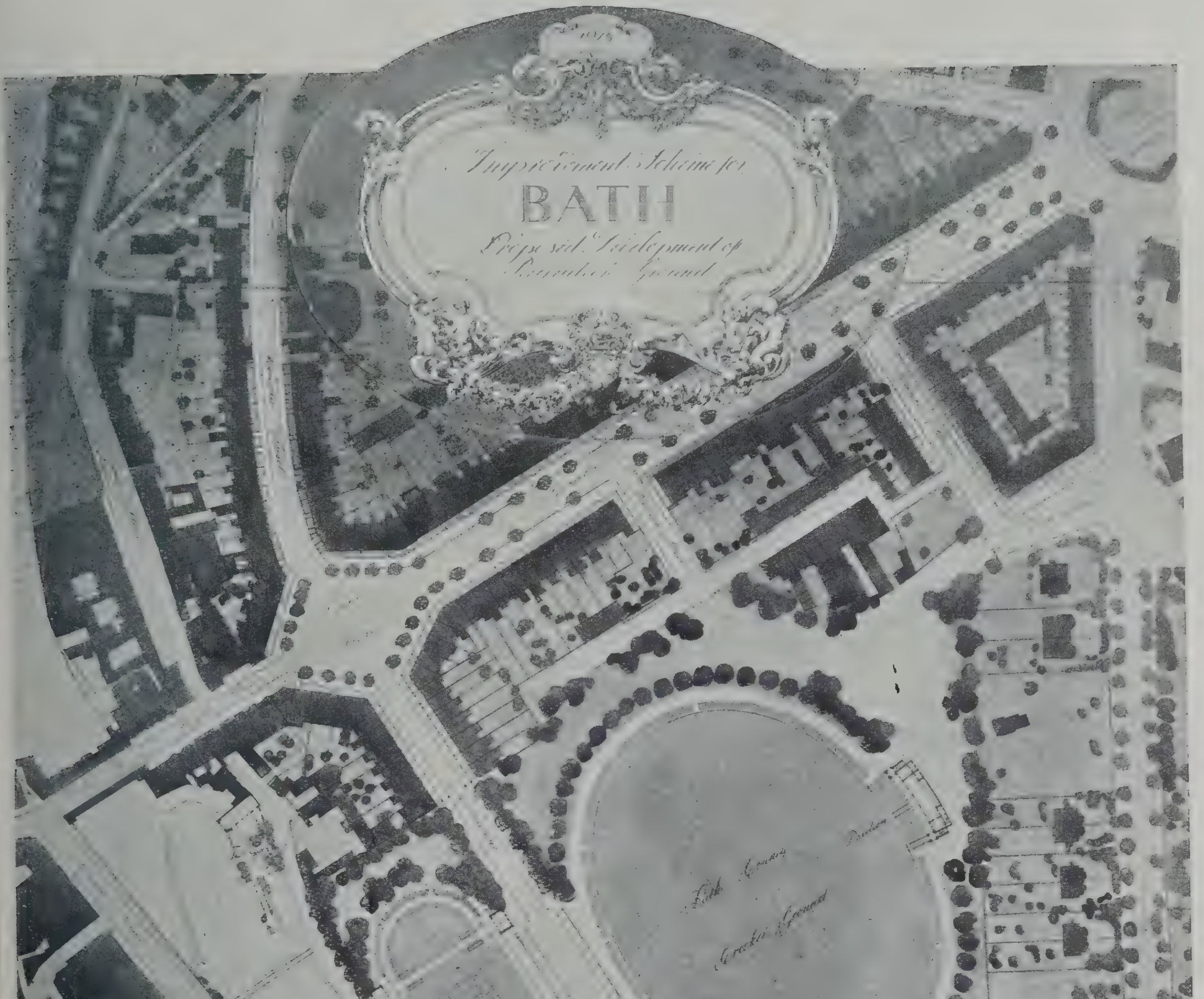


PORT OF LONDON AUTHORITY (COMPETITIVE DESIGN FOR THE NEW HEAD OFFICES, 1912).

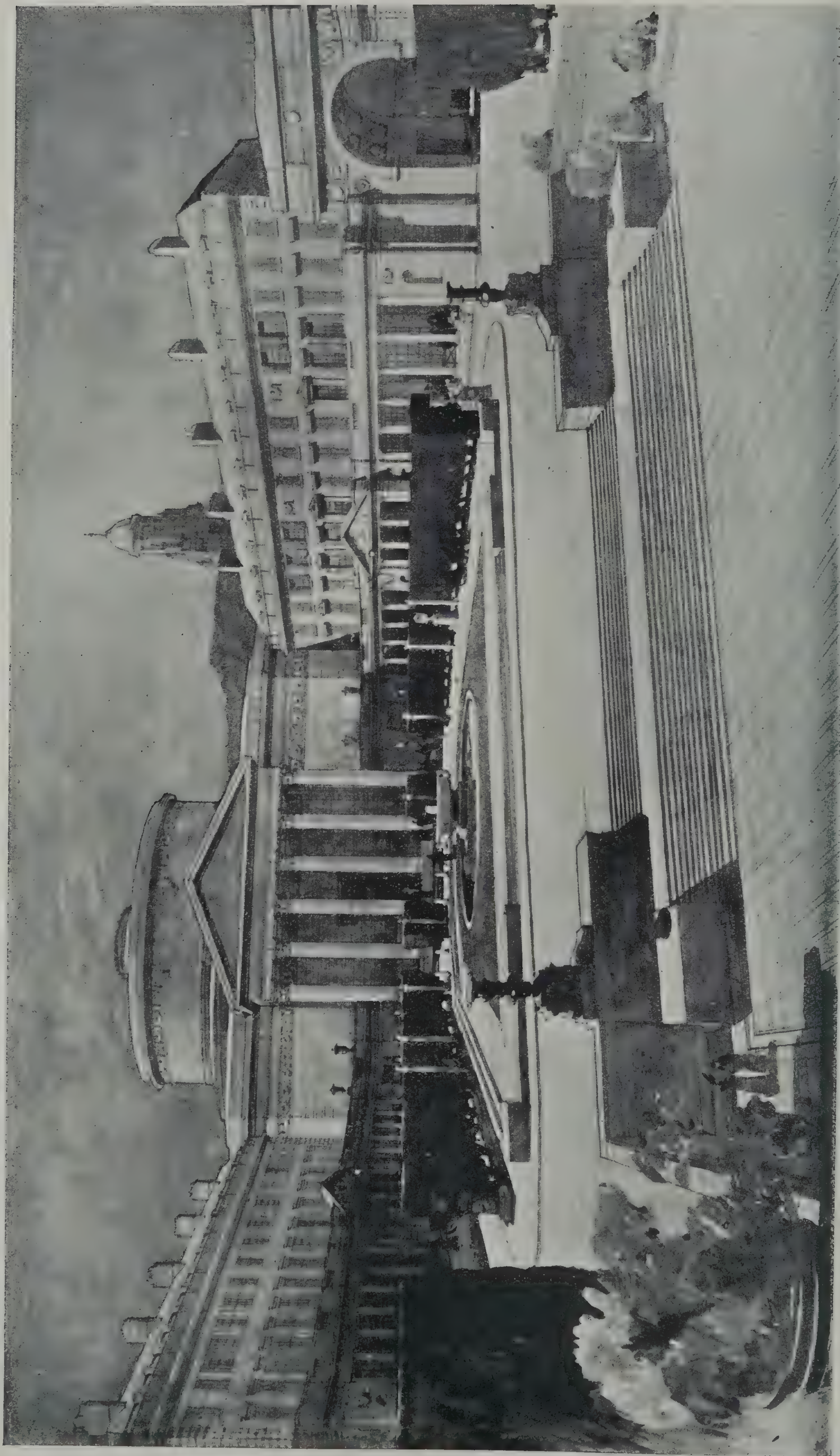
ROBERT ATKINSON, ARCHITECT.



BATH IMPROVEMENT SCHEME GENERAL PLAN. ROBERT ATKINSON, ARCHITECT.



BATH IMPROVEMENT SCHEME PLAN. ROBERT ATKINSON ARCHITECT.



BATH IMPROVEMENT SCHEME.

ROBERT ATKINSON, Architect,

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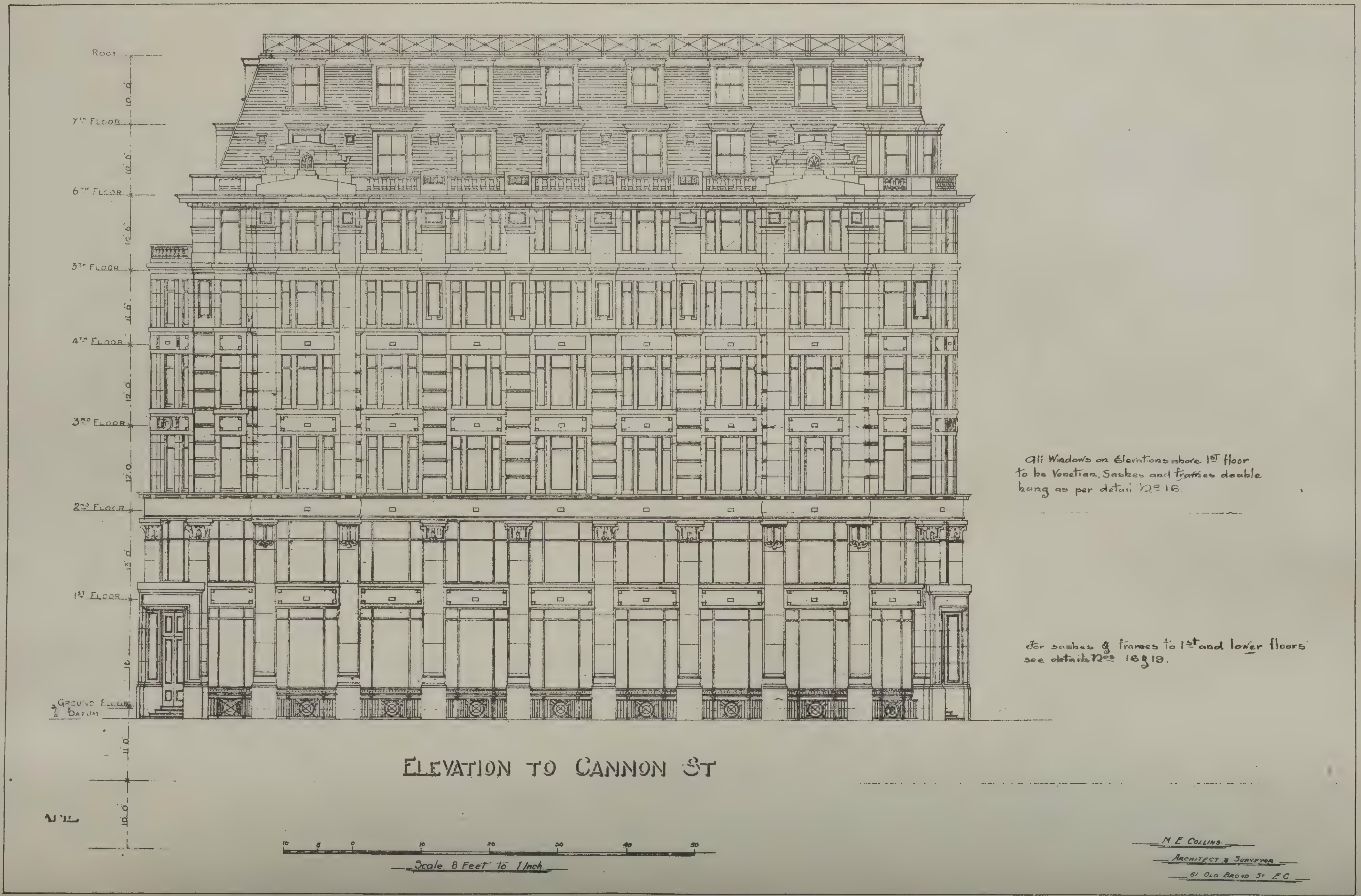

All Windows on Elevations above 1st floor to be Venetian, Sashes and frames double hung as per detail No 16.

For sashes & frames to 1st and lower floors see details Nos 18 & 19.

ELEVATION TO CANNON ST

M. E. Collins.
Architect & Surveyor
61 Old Broad St E.C.

PHOTO-LITHO SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70 DEAN STREET, LONDON W 1

STAFFORD HOUSE, KING WILLIAM STREET, LONDON. M. E. COLLINS, Architect.

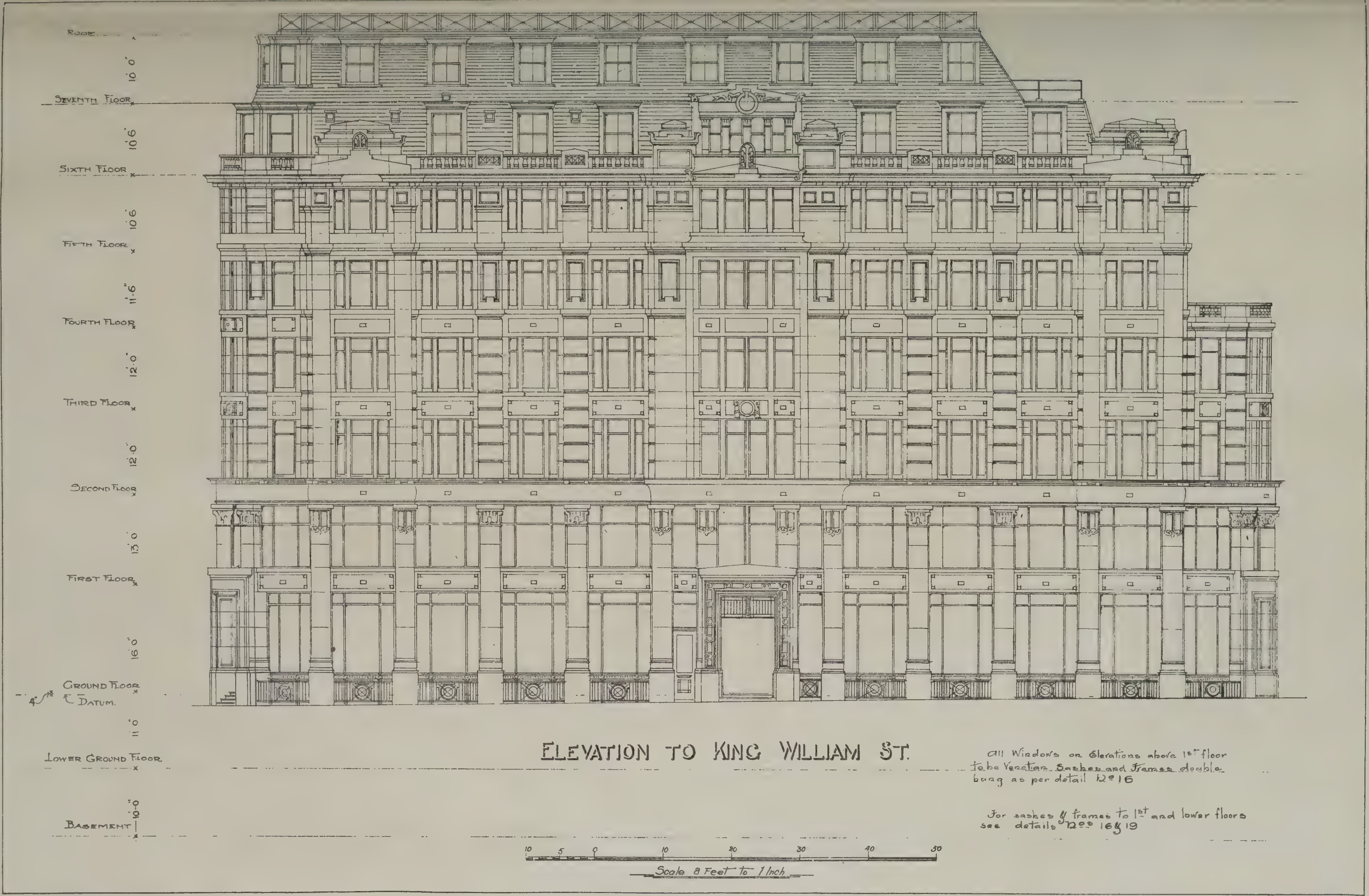

PHOTO LITHO. SPRAGUE HAYCOCK PRINTERS LTD 69 & 70, DEAN STREET, LONDON, W.1

STAFFORD HOUSE, KING WILLIAM STREET, LONDON, M. E. COLLINS, ARCHITECT.

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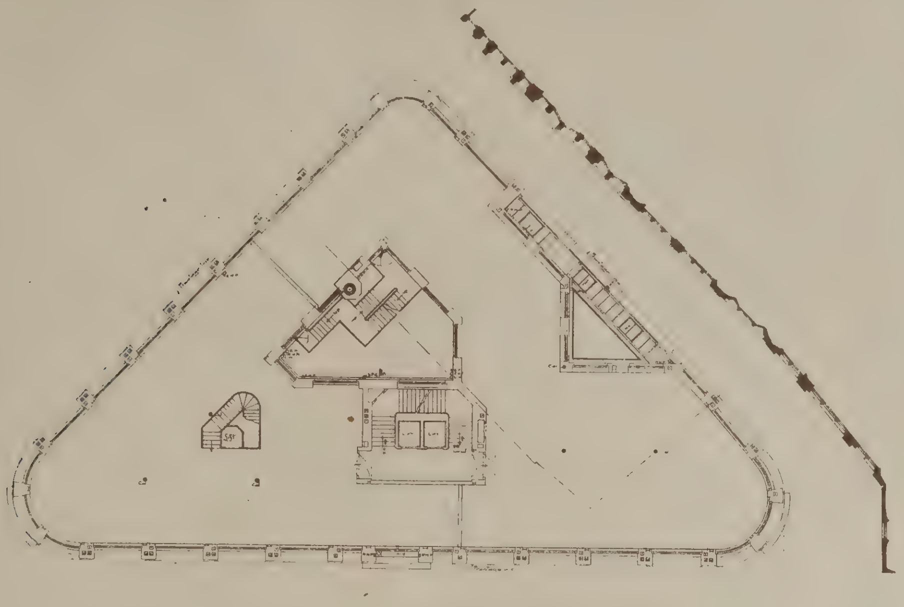
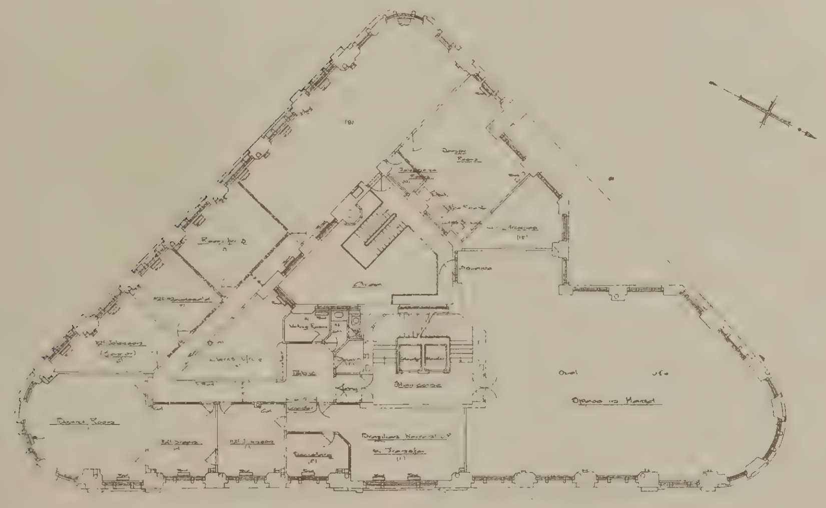
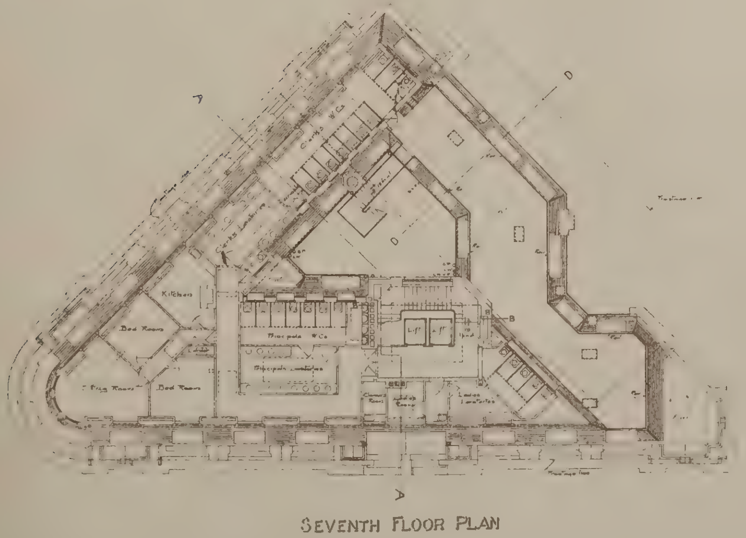


FIRST FLOOR PLAN

Scale 8 feet to 1 inch



THIRD FLOOR PLAN



SEVENTH FLOOR PLAN

PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON, W.1

STAFFORD HOUSE, KING WILLIAM STREET, LONDON, M. E. COLLINS, ARCHITECT.

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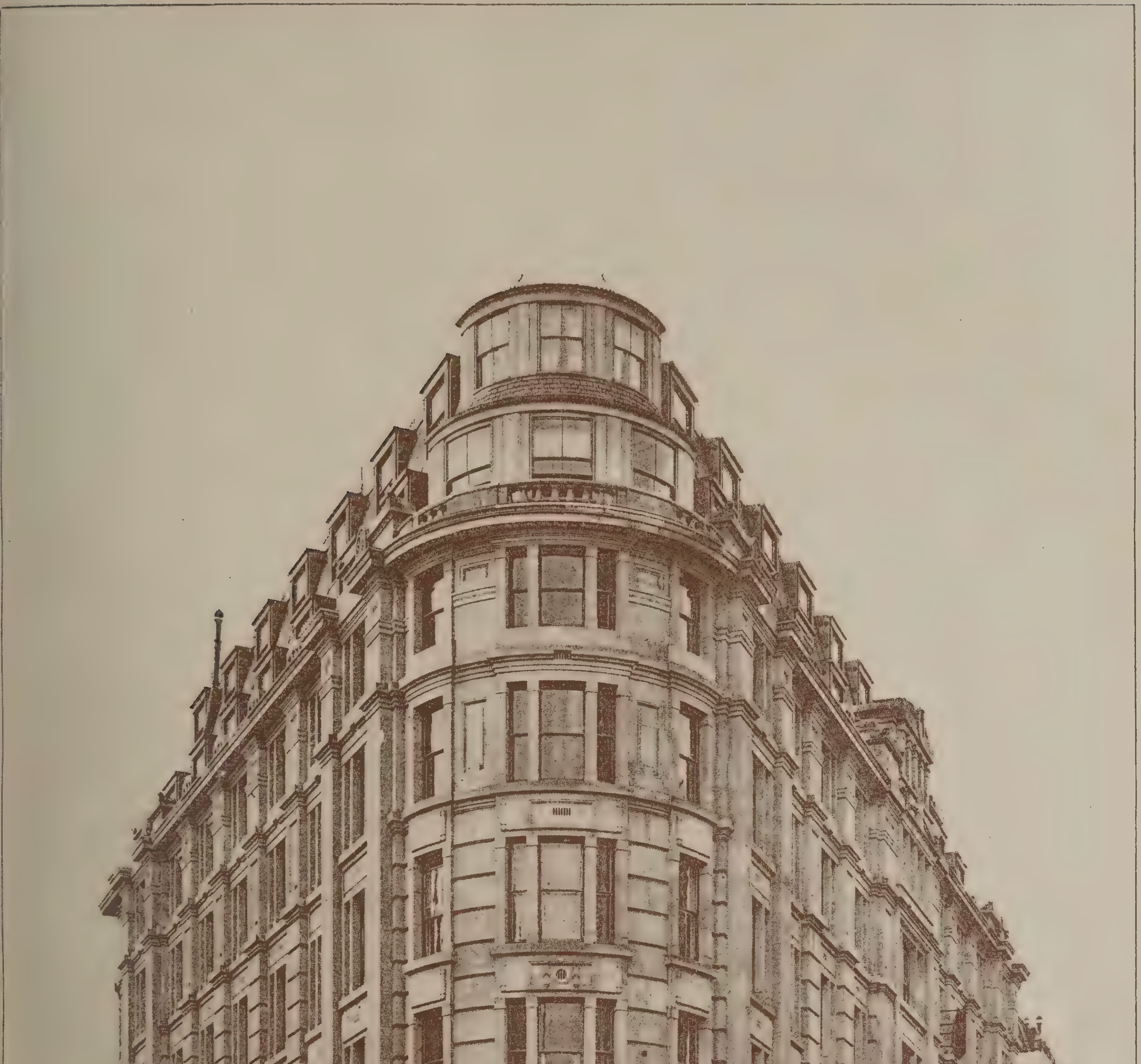

"INK PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

STAFFORD HOUSE, KING WILLIAM STREET, LONDON, M. E. COLLINS, ARCHITECT.

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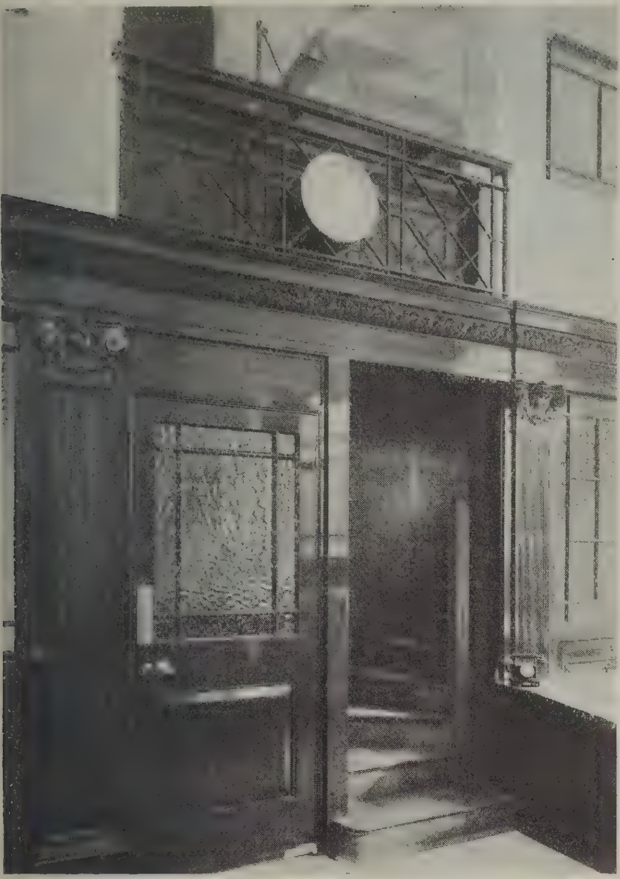
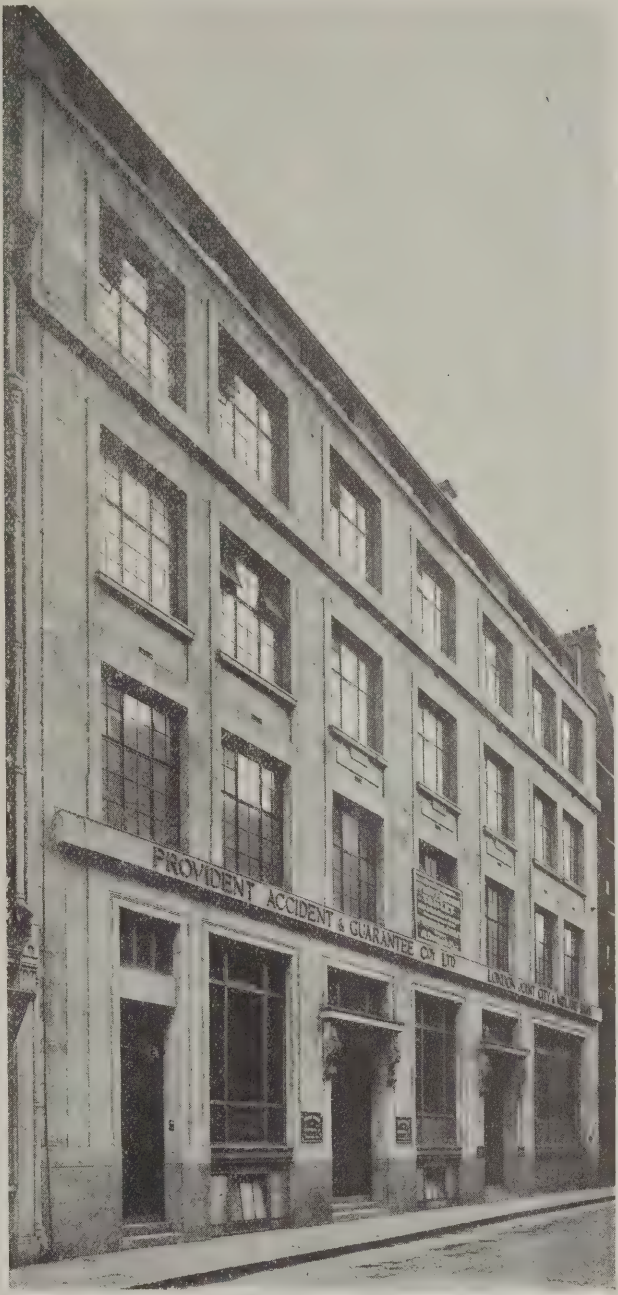
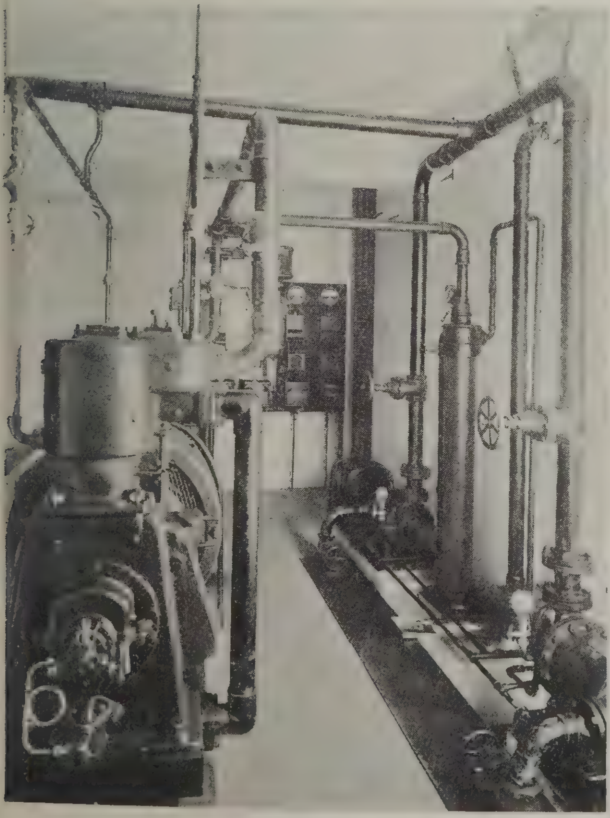


DETAIL IN GENERAL OFFICE, PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION. Campbell Jones, Son & Smithers, Architects.



PROVIDENT ACCIDENT & GUARANTEE Co. LTD
LONDON JOINT CITY & MIDLAND

NEW OFFICES, PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION. FAÇADE TO COLEMAN STREET. Campbell Jones, Son & Smithers, Architects.



ARTESIAN WELL PLANT BY ISLER & CO. NEW OFFICES, PROVIDENT MUTUAL LIFE ASSURANCE ASSOCIATION. Campbell Jones, Son & Smithers, Architects.

New Offices, Provident Mutual Assurance Association,

MOORGATE STREET AND COLEMAN STREET, E.C.

Campbell Jones, Son & Smithers, Architects.

This building has been erected on strict utilitarian lines, with very little interior decoration.

There are two frontages: the main in Moorgate Street, the secondary in Coleman Street. The Moorgate Street façade has some sculpture decoration, the entrance specially being beautified in this way.

The planning is simple and direct, as our illustrations show.

On the right of the entrance the Provident Mutual Assurance Association occupy the ground floor as their general office. A private lift connects with the directors' and staff offices above.

The general effect is plain, but in the usual good style characteristic of work by these architects.

In the sub-basement ample space has been allowed to the heating, air washing, artesian pumps, electric controls, and other plants and store fittings.

Some notably fine work has been rendered by the various specialists.

Messrs. William Morris & Co., Ltd., 60–66 Rochester Row, S.W.1, manufactured and supplied the metal casements, and are also responsible for the glazing and leaded lights and pavement lights. The lifts were by Marryat & Scott, Ltd., and they consist of the general lift and the private elevator for Provident Mutual Assurance Association; this latter is very tastefully decorated.

The artesian wells and pumping plant is a compact and efficient piece of engineering, and was carried out by C. Isler & Co., Ltd., Bear Lane, Southwark Street, S.E.1.

The automatic internal telephones were fitted by the Relay Automatic Telephone Co., Ltd.

The woodcarving in the general office and the stonecarving on the Moorgate Street façade were executed by Messrs. Aumonier & Son.

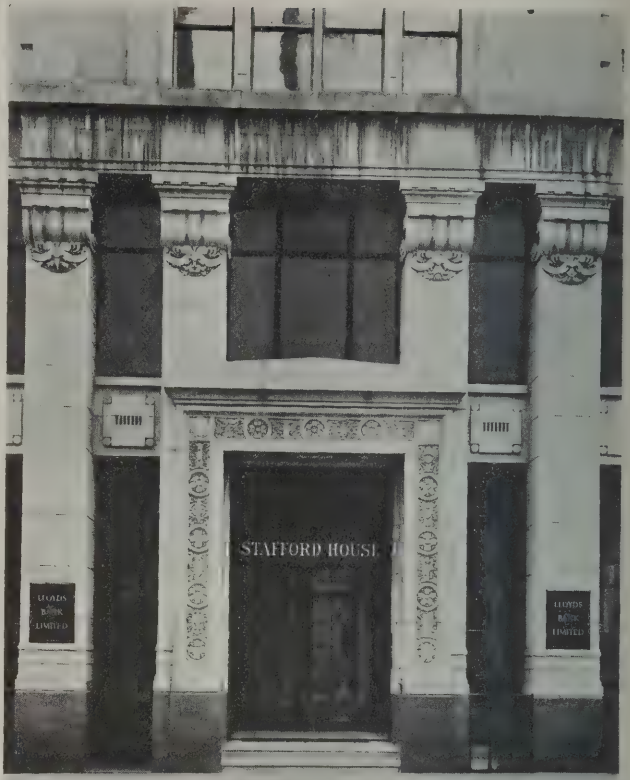
The concrete construction was carried out by the Siegwart Fireproof Floor Co., Ltd.

A very fine air-washing plant was installed by Messrs. Wheeler & Sons, who are also responsible for the heating and ventilation.

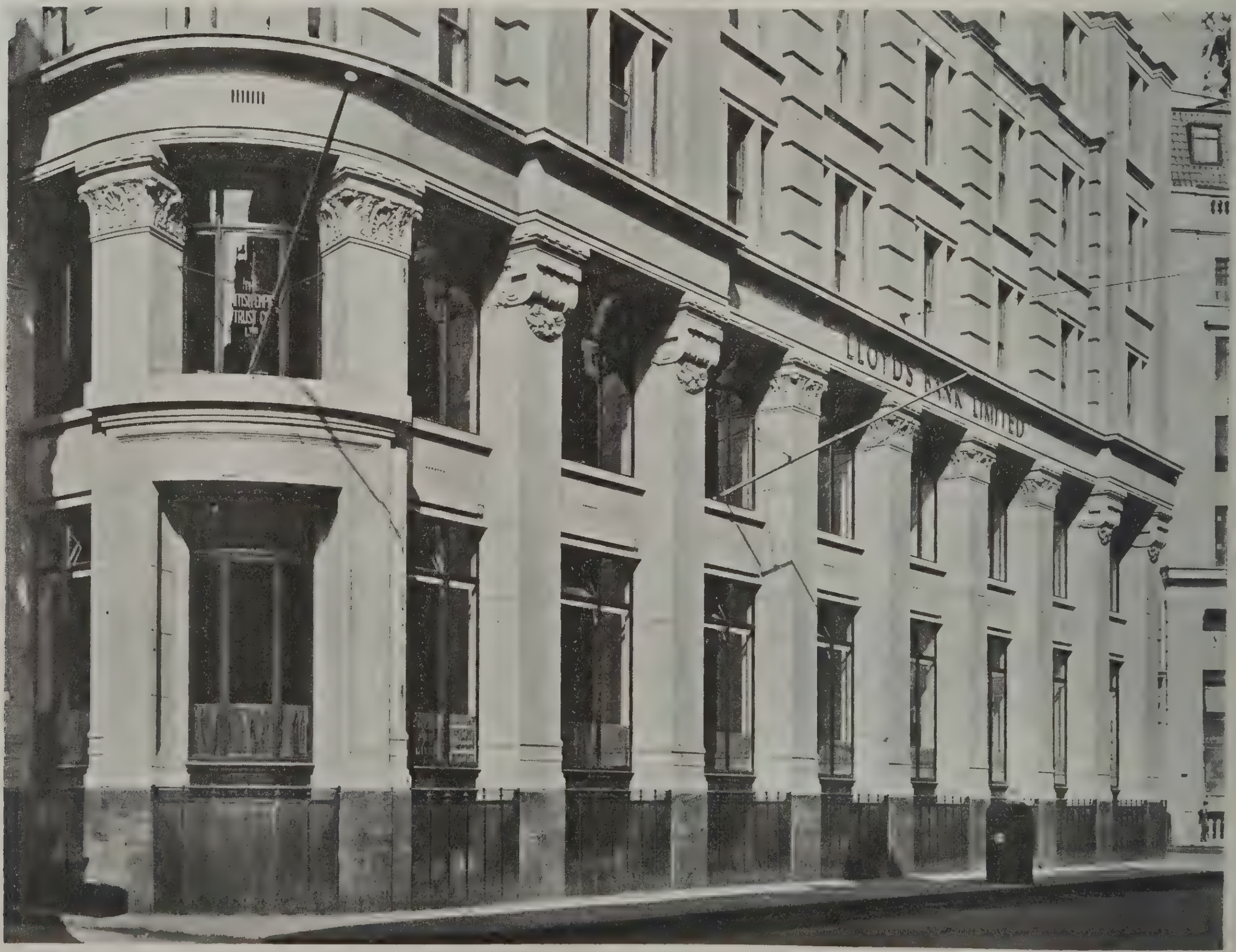
The skylights were by the British Luxfer Prism Syndicate, Ltd.

Messrs. Hollis Bros. & Co., Ltd., executed the wood block flooring. Mosaics were by W. B. Simpson & Sons, who also supplied the tiles.

Grates and chimneypieces were supplied by George Wright (London), Ltd., and the Portland stone by the South Western Stone Co., Ltd.



"STAFFORD HOUSE," CANNON STREET & KING WILLIAM STREET, LONDON, E.C. DETAIL OF ENTRANCE.
M. E. Collins, Architect.



"STAFFORD HOUSE." CANNON STREET ELEVATION. M. E. Collins, Architect.

London Art Galleries.

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With the opening of the New Year a number of very important exhibitions have opened in London, including the Society of Graphic Art, open from January 6—30, the drawings and paintings of Ronald Gray and Gilbert Spencer at the Goupil Gallery, the New English Art Club at the R.W.S. Galleries in Pall Mall East—with some striking portraits, including the clever study of his son David, by Augustus John, and landscape work by Sir C. J. Holmes—and the Pastel Society Exhibition at the Royal Institute Galleries, opened on January 3.

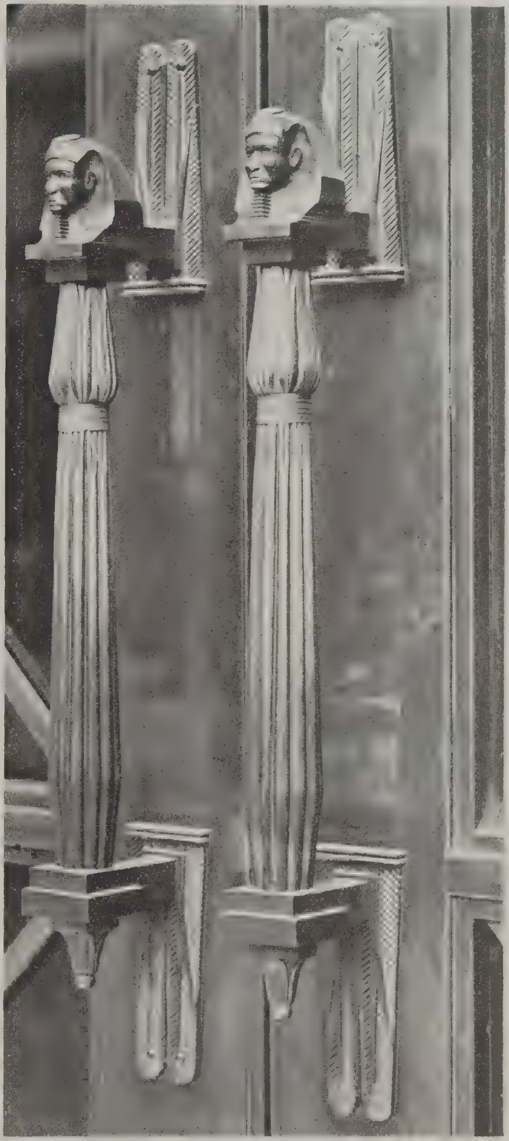
The Society of Graphic Art, under the presidency of Mr. Frank Brangwyn, R.A., has a very strong selection of work this year, and one which, in my judgment, fully justifies not merely the existence but the necessity of such a society as this. It brings together under this head of "graphic art" a variety of creative work which would otherwise with difficulty come before the public under the best conditions: the first room given to etchings, in which for architectural interest Gerard de Witt ("Isola Tiberina" and "Grande Place, Mons"), Alfred Hartley and P. J. Westwood claim a front place; the next room to wash drawings, with Charles Shannon's figure-work (lithographs) and Handslip Fletcher's "Changing London," and wood engravings, beside which hangs E. Wallcousins' brilliant wash-drawing, "Nemorosa Zacynthos." The Central Gallery is given to pen drawings, chalk, pencil and lithographs, two important groups being Frank Brangwyn's "Old House, Ypres" (brush and ink) between two clever nudes by Charles Shannon, R.A., and George Clausen, R.A., and in the centre of the end wall a figure of "Peace" by Miss D. W. Hawksley, whose work has been coming much to the front lately, between two fine lithographs of York by George Harrison. Among the pencil drawings I should pick out a delightful little study, "La Ville Close, Concarneau," by Charles Emanuel, and Flora Lion's clever portraits of Miss Ediss and "Eliza." The drawing near this of "The Cheese Market, Alkmaar," by Ruth Cobb, brings the large central building too forward, while the figures are poorly drawn. Among the aquatints Stephen Spurrier's heavy line of contour in charcoal tends (as this always must) to produce an effect of flatness. But I recommend this graphic exhibition unreservedly to my readers; and on no account must they miss the 59 drawings by Charles Keene, lent by Mr. Charles Emanuel, in the end room.

I must confess to being attracted by Ronald Gray's landscapes now on view in the Goupil Gallery. These watercolours are kept loose in handling, and in a delicious key of quiet colour. "Bosham," "The Needles" (two of this subject) and "A Breezy Day," are good examples. His "Nude Study" is not carried, to my mind, far enough, the face and lower limbs left unfinished, while the left breast and shoulder—as far as indicated—hint at doubtful drawing. In the next room Gilbert Spencer has some careful portrait drawings in line, but in his "English Landscapes" the perspective of his "Petersfield Market" seems open to question, and yet more so his "Berkshire Farm," while the farm buildings and cow-yard appear running up to the sky, like the ancient labourer in "Summer," who seems to be seeking in the blue heavens an escape from the very unattractive children in the foreground. On the other hand, "Dunsdon" is a charming composition, and has good colour.

In the Pastel Society's present exhibition it seems to me that a very front place may be claimed for the work of Leonard Richmond, R.O.I., and J. Littlejohns, R.B.A. The group by the former artist in the end of the south gallery of five pastel paintings all dealing with Siena, is very fine, but yet better, perhaps, is the single painting in the west gallery of "The Marketplace, Siena," with its fine spacing and rich colour of the sun-toned walls. This artist has, I know, been recently in Italy, and has drawn a harvest of work from the wonderful old Tuscan city. But no less richly does Littlejohns show here. His "Glitter"—seafoam and rocks—his "Evening, St. Ives," looking very Italian in character, his "Dewpond" and "Afterglow and Moonrise" are, to my judgment, among the most attractive work he has done; and there can be no doubt that pastel as a medium can give very delightful results. In figure work, Alfred Palmer's "Sea Maidens" and "The Green Crab" glow with warm colour, and Isaac Cohen's "Yellow Shawl" is a brilliant portrait study, which is even surpassed by his "Muriel." My readers must not overlook the Hanslip Fletcher studies of Spain—and Ramsgate—in the north gallery, and three wonderful studies there by Frank Brangwyn.

I am informed by the authorities of our National Gallery that from Monday, January 8, the portraits of the late Mr. Asher Wertheimer's family, which have been described by me already in these columns, will be exhibited in Room XXVI. The Sunderland Art Gallery and Museum, under the able directorship of Mr. J. A. Charlton Deas, is giving its attention to Egypt, with a series of lectures on "The Story of Ancient Egypt," by A. G. K. Hayter, F.S.A., and an exhibition of antiquities and paintings dealing with the land of the Pharaohs.

S. B.



BRONZE DOOR HANDLES AT SWEARS & WELLS' PREMISES, OXFORD STREET, W. K. ARNOLD, Architect. Executed by S. HASKINS & CO., LTD.

Sir Frank Short, R.A., the President of the Royal Society of Painter-Etchers and Engravers, has just presented to his native town of Stourbridge a mayoral badge which he has himself designed and has made in silver. The badge bears symbols representing the glass industry, the River Stour and its water power, and the scythes and spades which are made in the town. Sir Frank Short is to be presented with a vote of thanks engrossed on vellum.

The Old-Time Watermill.—I.

By J. C. Kershaw and Charles G. Harper.

Watermills have been in their day not only needful and efficient machinery for supplying, together with the windmills, enough good flour for the daily bread of a population moderate in numbers, but they have formed much more than this merely material blessing. These generally very picturesque buildings and their usually charming surroundings have been the subject and inspiration of countless painters and writers, and the miller has been the source of classic types of mankind—good and bad, but all interesting—from before Chaucer's time down to this present evil day for watermillers and windmillers, whose livelihood has been wrested from them by the huge modern roller-flour mills.

BIRDHAM TIDE-MILL.

SIDLESHAM TIDE-MILL.

Watermills have wheels of three types, overshot, breast and undershot, the terms being quite explicit, though it may be added that a breast-wheel is a half-and-half affair—the water striking it about its mid-diameter, so that it is partly the force of current and partly the weight of water which is the motive power. The overshot wheel has buckets, or troughs, which the water coming over the top of the wheel fills up, so that the power-factor is the weight of the water; whereas the force of the rushing current drives the undershot wheel. Many undershot wheels are hidden beneath the building, or nearly obscured by a penthouse, and overshot are nowadays often shrouded in a casing of weatherboard; or, worse still, with corrugated iron. A wheel that can be seen slowly revolving and obscured only by sparkling and dashing water adds greatly to the attractiveness of the scene. Unfortunately, from the picturesque point of view, the turbine is steadily ousting the wheel, and the former machine is placed underground and invisible—which is perhaps as well, for it is not remarkable for beauty.

Since the war, some of our disused watermills have been bought up as residences, very often by people who have come from the oversea Dominions and appear to take much interest in these old-world heterogeneous collections of buildings, and keep them in good preservation by judicious repairs. Not only are these mill-buildings often very large but the grounds attaching to them are extensive and usually so varied and well-timbered and planted that they would be very charming even without the chief attraction—clear and running water in the stream, and a pond so extensive that it might almost pass for a lake, shining like a mirror except where it reflects with startling crispness the mill and its encircling foliage. And the dainty, nodding moorhen is never lacking on a mill-pond, and is generally bold enough to approach quite close to one, but still a wild creature and therefore possessed of an interest which scarcely attaches to a swan, though swans are often kept on millponds. In some localities coots and dabchicks frequent the ponds, though the latter prefer the stream, or running water.

In hilly districts it is quite surprising to find what a tiny rivulet will suffice to turn an overshot wheel, though most mills have a pond or reservoir to draw upon. Many of these brooks can easily be stepped across except after heavy rain. But these streamlets are in some ways more attractive and interesting than great rivers—at least they would be but for the inherent carelessness and lack of decency of a large part of our population, which invariably deposits its old boots, tins and other unsightly refuse in the nearest stream or pond. Perchance it is some instinct which impels them to do this, as in the case of that curious beast, the tapir, which has the same trick of depositing filth in water: but for this amusing legend we refer the reader to the original account of it in A. R. Wallace's "Malay Archipelago."

FAREHAM TIDE-MILL.

Though the small Kentish brooks are all named, you will find that many of the villagers living beside them cannot tell you their names—they have always known them as the stream, or more probably, the water. Many folk on the banks of the Darent have never heard of the Darent. True, it is also very small, but it is a well-known river, though sadly altered since Spenser wrote of it. It is now a dirty stream, and certainly no ten thousand—no, nor yet ten—fishes sport in its silver (!) stream. Where the water is sufficiently clear to see what lies upon the bottom it is much wiser to forbear. Yet some thirty years ago three- and four-pound trout were fairly common. There were watermills on the Darent formerly; decent flour-mills, but one or two are now put to other uses, and the rest are derelict. One, however, still remains, with its gear intact but disused, alongside the pretty fourteenth century bridge at Eynsford. with the mutilated carving of a monk's head built into one of the piers.

MILTON COURT MILL.

Watermills making stone-ground flour are rapidly disappearing before the roller-mill and its huge and cheap output, but tidemills seem to have suffered most—there must at one time have been a fair number of them. We know of at least a dozen that used to stand on the coast of England, but only know of two that are still working, one at Birdham, in Sussex, the other at Woodbridge, in Suffolk. Tidemills were always located where the sea tides are normally high, the water at high tide being impounded in reservoirs or ponds several acres in area; when, at ebb tide, the outside water is sufficiently low, the sluices of the wheels are opened and the mill works, until the flow of the tide becomes too high for the pond water to escape from the wheels. These wheels are undershot with paddle-boards like those of a paddle-steamer, since there is not enough difference of level for an overshot wheel. The mills are generally situated on a navigable creek or estuary, so that large barges can load right at the mill. Their masts and quaint big-headed mooring piles replace the trees of ordinary watermills, and seagulls and shore birds haunt the water instead of moorhens and dabchicks, and, as usual, the mill and its surroundings are all in keeping, and in their own way as picturesque as the ordinary watermill buried in foliage. The majority of tidemills appear to have been on the Sussex and Essex coasts, where the tides are very high—twenty feet or more at spring tides, according to the charts. A considerable portion of the heavy timberwork and brick understructure of Sidlesham mill, near Chichester, was still there in 1922, but the whole superstructure was pulled down some two years previously. It was a much larger mill than Birdham, in the vicinity, which still survives and has two wheels, one of them driving seven pairs of stones. The Woodbridge tidemill has an old-time timber-built wheel twenty feet in diameter and very broad, with a wooden axle over two feet square in section. The millpond is some five acres in extent. The flour is still used locally for breadmaking; most wind- and water-mills now only grind meal for pigs and poultry. The original weather boarding has, unfortunately for appearance sake, been covered with corrugated iron sheeting. There are fine old warehouses adjoining the mill, with those louvred windows suggestive of hops, malt and old October. Also an ancient but still serviceable timber wall-crane which has probably hoisted many a pocket of hops and sack of malt. The mill is on the estuary of the Deben: at low tide the ferryman at the nearby ferry poles his boat over an insignificant channel a few yards broad and less than a foot deep, but at high water a barge of over a hundred tons can lie alongside the mill wharf. With this great advantage of water transit there is hope that Woodbridge mill may survive for some years to come. Herons, curlew and redshanks and other shore birds, and, of course, gulls, of many species, visit the tidal mudflats, and a pair of swans are resident and nest there annually; this year sitting on ten eggs and hatching them all. It must have been difficult for even so large a bird as a swan to cover so many eggs. I saw the pair late in the evening leaving the mudflats with their cygnets, on their way to the millpond, where the miller informed me they always retire for the night. One old wildfowler told me the pretty oystercatchers used to be quite common, but he had seen none for years, and other shore birds, formerly common there, were becoming scarce.

The tidemill at Walton-on-the-Naze was pulled down about three years ago, and only some skeleton timberwork remained in 1922. That at Bishopstone near Newhaven was on land purchased by the railway company, who pulled down the mill, but so far have made no use of the ground. Fareham tidemill, near Portsmouth, was dismantled in 1921, and was a large and exceedingly picturesque aggregate of buildings. But indeed it is ebb-tide with a vengeance now for tidemills, and for that matter with most old-fashioned mills driven by wind or water; the greater number have entirely disappeared, and but few still linger. They have for centuries—until after 1800—amply sufficed to supply a normal population with good bread, but they cannot cope with the enormous quantity of cheap flour required by a population out of all proportion to the area of England.

One of the most picturesque mills in Surrey with an overshot wheel was at Milton Court, near Dorking, but the wheel was removed during the war, and the buildings are now becoming dilapidated and overloaded with masses of ivy—a beautiful plant in moderation, but most needed on ugly buildings. The nearby Rookery Mill has become a school and grinds grammar and the like. Pixham Mill, close to Dorking, is still at work, but its overshot wheel is enclosed and invisible. The Parsonage Mill, also overshot, is still working, and is less than two minutes' walk from the railway station in Dorking, yet I saw a kingfisher flash upstream from the mill, which is within the town area. This stream is the Pipbrook which runs into the Mole. It is a pretty little brook, and Dorking deserves her many streams, for she keeps them cleaner than most places do, though perhaps not quite so free of old tins and fryingpans as the river and waters around Huntingdon.

BETCHWORTH CASTLE MILL.

Hollingbourne, Kent, has one of the typical old village mills, very small, and with an ancient overshot wooden wheel; it is still in use and probably in former times supplied the whole village with flour. It is beautifully situated in a small hollow overhung with trees near the church, the springs which form the stream bubbling forth not far away at the foot of Hollingbourne hill—part of the ridge or Downs which sweep onwards to Ashford. The Hollingbourne is very small, very pretty, swift and fairly clean, and joins the Sen, also a nice little brook flowing into the Medway. There are two or three overshot mills yet working on the Sen, small and not very sketchable, but an asset in the appearance of the countryside.

Betchworth Castle mill, nearer Box Hill than Dorking, has a very large undershot wheel as fully visible as a waterwheel ever is. It can be seen plainly from the railway train as it passes. Driven by the clear water of the winding Mole, its white and comely buildings and big black wheel are mirrored in the stream and backed by a densely wooded steep hill. The Mole and the smaller streams in the neighbourhood of Dorking are very pretty and usually have a swift current. They look alluring to anglers, but most of the fishing is strictly preserved by angling societies.

Around Huntingdon are three or four large and beautiful old watermills with undershot wheels, all of them set in enchanting environment, but only two, I believe, still working, Hemingford Grey and Houghton; the latter had formerly two wheels, one on either side of the building, but only one now remains. Brampton mill, about a mile from Huntingdon, is now merely used as a residence and must make an ideal one for anglers. At Godmanchester is a fine old mill in a delightfully wooded nook on the Ouse, but it is disused and falling to ruin. The mill at Hemingford Grey is also finely situated on the Ouse. At the "Old Bridge" inn at Huntingdon is a millstone used as a doorstep which came from this mill, said to have been owned at one time by Oliver Cromwell.

The fine old keep-like watermill at Netley, near Dorking, is a stone building with walls 2 feet thick and an oak roof framed like that of a church. The mill is said to be specifically mentioned in Domesday Book, and appears to be of Norman work. The wheel is a modern iron one and works a pump, the mill being utilised as a waterworks. But the building is carefully tended, and was so solidly built (in times when "builders wrought with greatest care") that but little repair has been needed, and that little has been done with good judgment, so that it stands to-day much as it did over eight hundred years ago. Gomshall, the next village from Netley towards Dorking, has another very ancient undershot mill, partly stone, partly timber-built, the ceiling of the ground floor so low that one must stoop. It is still grinding with stone-gear. The stone and timberwork of the ground floor probably date from early Norman times. It is worked by the Tillingbourne, a very attractive little stream running through Gomshall village, but motor traffic and summer crowds have soiled it, as they have so many of the erstwhile beauty spots of England.

Waterwheels have been used for centuries to drive machinery of all kinds. In Kent and Sussex they were utilised from the sixteenth century to work the weighty helve hammers of the Weald ironworks; but although one or two of them were still at work after 1820 and many place-names in the two counties are derived from these water-power hammers and their ponds, there is probably not one waterwheel now extant, though thirty years ago there was still an old, fast-decaying hammer wheel near Lamberhurst. One imagines that these old ironworks were very different from those of the present day. Probably their hammer-ponds were frequented by moorhens and overhung with the dark but pretty alder and the graceful willow, a fine and striking tree when allowed to grow naturally, and very quaint and very picturesque when pollarded, when they are beloved of nesting titmice and willow wrens. Their reed-ronds and beds of rushes must have been tenanted by many a sedgewarbler, wild duck and teal, and the dull thud of the hammers probably struck no discordant note any more than does the blacksmith's anvil and the wheelwright's axe; both of which enhance the peace and interest of rural life as much as the work of the village labourer and farmer. The charm of English rural life is endless, but it centres around mill, church, forge, wheelwright's yard and farmstead, all of which are threatened by modern industrialism.

HOUGHTON MILL.

The miller was the theme of many an old ballad and of much real poetry. We have, for example, the ancient ballad of the "Miller of the Dee": that very independent person who sang "I care for nobody, no, not I; And nobody cares for me." Then there is Tennyson's "Miller's Daughter" with his description of her father, being equal to his "Northern Farmer," and probably drawn from some actual Lincolnshire miller of his acquaintance. Doubtless Tennyson was at his best when he wrote of Lincolnshire folk and scenery.

Many like to think that Stockworth Mill, on "The Brook" that Tennyson in his early career sung so sweetly, is the mill of "The Miller's Daughter":—

> ". . . the brimming wave that swam
>   Through quiet meadows round the mill,
> The sleepy pool above the dam,
>   The pool beneath it never still.
> The meal-sacks on the whiten'd floor,
>   The dark round of the dripping wheel,
> The very air about the door
>   Made misty with the floating meal."

Of another minor literary note is "Middle Mill," just across the border-line within Devon, as you go west from Lyme Regis in Dorset. The old mill has seen its best days and no longer grinds corn, and the wheel—an overshot one—is idle, for the best of reasons: the stream that turned it has been diverted. The thatched mill-house and the adjoining cottage, are, together with the silent wheel, in that condition of picturesque decay which spells romance to artists, who, discovering it, cannot resist a sketch. It appealed irresistibly, years ago, to an artist in another craft, to none other indeed than Sir Walter Besant, who laid the scenes of his eighteenth-century story, "'Twas in Trafalgar's Bay," chiefly here and at Rousdon.

He describes Middle Mill exactly as it is situated:—"At the back of the mill was an orchard, where the pink and red cider-apples looked pleasant—they could not look sweet. Beyond the orchard was a piggery, and then you came to the bed of a stream, which was dry in summer, save for a little green damp among the stones."

The only objection to this description is that of the cider-apples, which do look sweet and actually are not. The bitterness of the true Devon cider-apple bites to the bone.

Along this same coast of South Devon—at the western end of it, as you approach Plymouth—there is a very singular water-mill, actually on the beach. It is at Wembury, and it forms, with the old church just above it, a remarkable composition. There you see the church on its commanding knoll, girt about with a strong circular brick retaining-wall, lest, haply, it should descend bodily to the shore in ruin. The age, the rugged beauty, and the interest of the church are almost completely hidden beneath a coating of plaster.

A little upland stream works the overshot wheel of the mill; and so close is the sea that in times of storm the salt spray drenches the walls of the sturdily-built old mill-house.

An uncompromisingly ugly building on the Trent bank near Gainsborough styles itself in large characters on its box-like walls the original of "The Mill on the Floss," but a glance is enough to demonstrate that the original mill of that tale is yet to seek.

(*To be concluded.*)

"The Architect" Fifty Years Ago.

January 11, 1873.

"Counsels of Ignorance."

That so able a draughtsman as Mr. Phené Spiers should be found the advocate of the vicious system by which a French architect seeks, by means of a transparent fiction, to give to his geometrical elevations an apparent reality of effect which is foreign to their nature, is much to be regretted.

Architects should never lose sight of the fact, which is seldom sufficiently recognised, that the drawings which they prepare for exhibition are, or ought to be, of two kinds; namely: (1) Those which present the *real aspect* of the building; and (2) those which represent its *dimensions*.

By the "real aspect" of the building is meant the manner in which it presents itself, from one or more points of view, when executed, to the beholder by means of the beautiful but simple mechanism which nature has provided for the purpose, and which is roughly illustrated by the small aperture on the side of a dark chamber, and the sheet of white paper inside it, on which the objects without are projected by the intersecting rays that pass through the opening. But as the human eye possesses what the camera obscura does not possess, namely, the ability to correct the inversion of the subject caused by this intersection of the rays of light, the prism of the camera lucida—in which this inversion is artificially corrected—and the image that it throws upon a plane below it, may be taken as representing more correctly, in an *artificial* manner, the effect that the view of any building produces, in a *natural* manner, on the sense of the observer.

This effect, then, is the *natural effect*, the *real aspect* of the building.

Mr. H. O. Tarbolton, F.R.I.B.A., is to act as architect for a church about to be provided for Bangour Village Asylum, near Edinburgh. A sum of £8,000 has been collected for the purpose.

The Scottish War Memorial.

As there has been some apparent misunderstanding as to the position of the Commissioners of Works with regard to the proposed Scottish National War Memorial, the First Commissioner desires to make the following statement:—

1. No scheme has ever been sanctioned by the late Government, who merely recorded early in 1920 that, as there was some division of opinion in Scotland upon the scheme, they could not express any view by way of approval or otherwise in regard to it. They were willing, however, that an appeal should be made as suggested, on the understanding that if its success were such as to indicate a general measure of approval the Government would offer no objection to the carrying out of the scheme under Government supervision.

2. A committee of representative Scotsmen, with the Duke of Atholl as chairman, was appointed by the late Secretary for Scotland, and entrusted with the task of developing the scheme.

3. The question has not been considered by the present Government.

4. The responsibility of the Commissioners of Works consists of safeguarding the architectural and historical character of the building on the Castle Rock, of which they are custodians on behalf of the Government.

5. In September, 1920, the then First Commissioner submitted the first design produced by the committee appointed by the late Secretary for Scotland to the Ancient Monuments Board for Scotland. The Board made certain criticisms, and the scheme was modified to meet those criticisms.

6. Since that date a complete model has been prepared by Sir Robert Lorimer, showing what is understood to be the definite shape, in the committee's opinion, the memorial should take. This design was submitted by the First Commissioner to the Ancient Monuments Board for Scotland, and, in order to facilitate its examination, the half-inch model was photographed in such a manner as to enable it to be applied to photographs of the Castle, with the object of showing the alteration in the sky outline which the proposed memorial would produce. In order to check the accuracy of the photographs, a rough scaffolding was erected on the Castle Rock, showing the actual height of the proposed memorial. It was fortunate that this check was applied, since it was thereby made apparent that the proposed shrine would be, indeed, higher than it appeared to be in the photographs. The photographs were taken and the scaffolding was erected under the superintendence of the officers of His Majesty's Office of Works, with the assistance and with the assent of the Duke of Atholl and Sir Robert Lorimer.

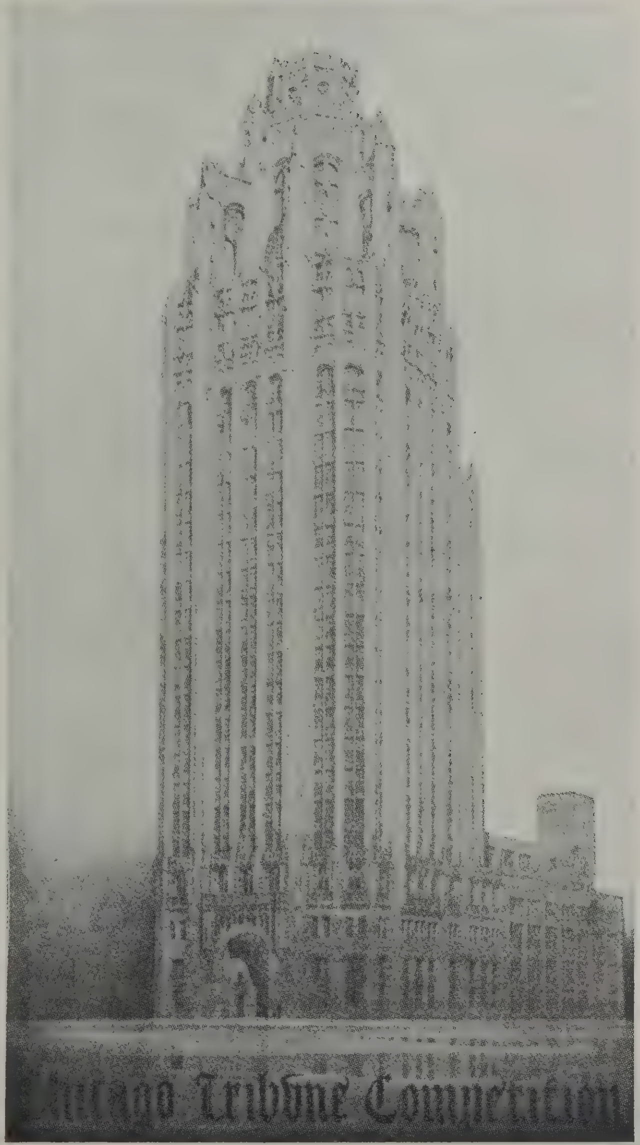
7. The second report of the Ancient Monuments Board for Scotland, which has now been published, points out certain defects in the present design from the point of view of the maintenance of the traditional and historical outline of the Castle.

8. The Memorial Committee has been furnished with a copy of this report.

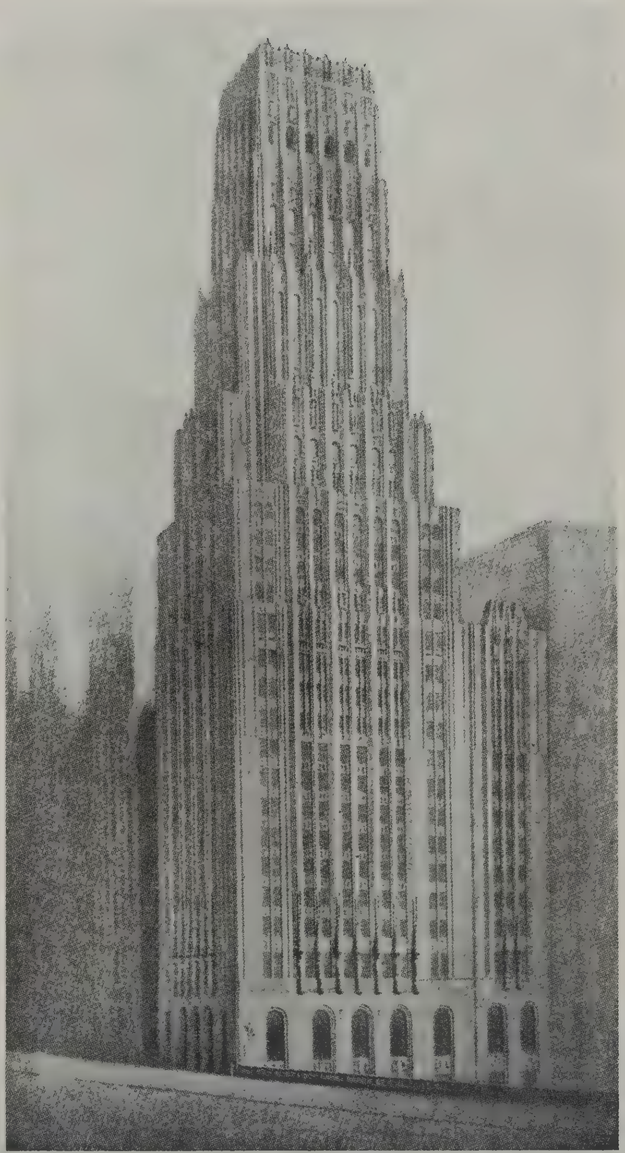
9. In the opinion of the Commissioners it is essential that the utmost publicity should be given to any scheme which may eventually be submitted to the Government for approval, for it is clear that a definite expression of public approval should be a precedent condition of any submission to the Cabinet.

The Exhibition of Contemporary British Architecture recently on view in the R.I.B.A. Galleries closed on December 22, and practically the whole of the exhibits are now being packed for immediate despatch to New York, where they will form the British Section of the Continental Exhibition of Architecture which is being organised by the Architecture League of New York. The Exhibition will open in February in New York, and it is anticipated that it will afterwards be sent to a number of the larger cities.

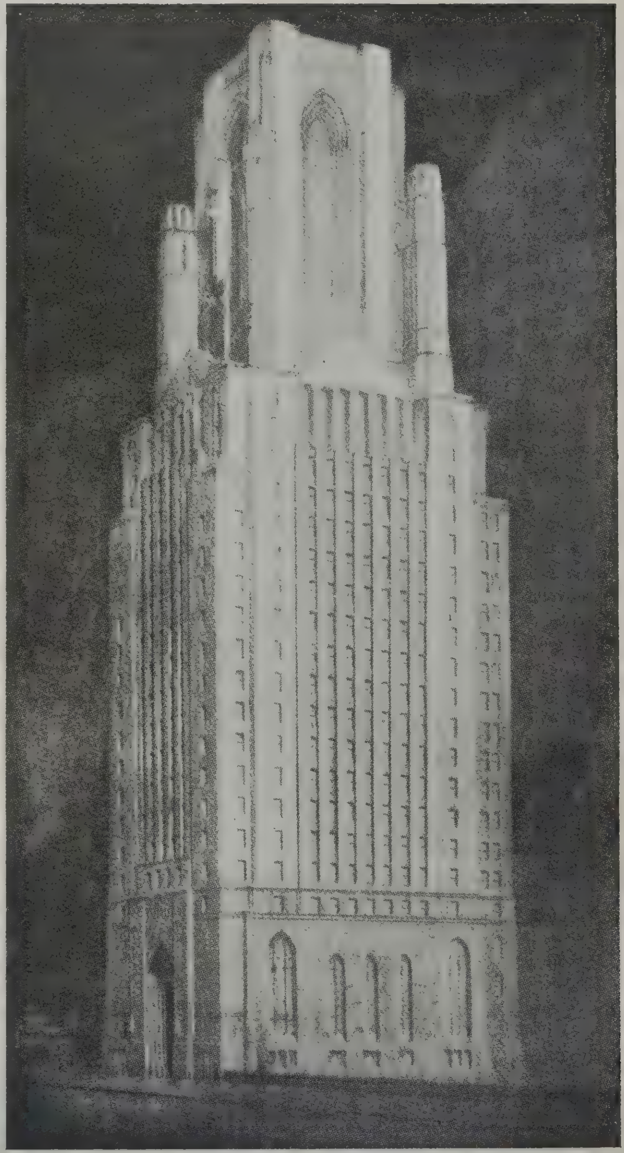
The funeral took place recently at Sunderland of Mr. George T. Brown, F.R.I.B.A., of Sunderland, who died on the 26th ult. at the age of fifty-six. Mr. Brown, who was a past president of the Northern Architectural Association, was a prominent Freemason. A lover of music, the deceased gentleman was untiring in his efforts to secure the best class locally. It was principally through his interest that the School of Architecture was founded in connection with the Armstrong College at Newcastle. He was a native of Sunderland, and was advising architect to the Wearmouth Coal Company and the Thornhill Estate, Sunderland, and carried on a large private business. Mr. Brown, whose death was due to an internal trouble, leaves a widow and three children. At the funeral there was a large gathering of architects from all parts of the North, Freemasons, members of the Sunderland Guild of Help, and the Rotary Club, of which organisation Mr. Brown was a prominent member.



DESIGN PLACED FIRST.
John Mead Howells, Architect.
Raymond M. Hood, Associated Architect



DESIGN PLACED SECOND.
Eliel Saarinen, Architect.



DESIGN PLACED THIRD.
Holabird & Roche, Architects.

The "Chicago Tribune" Office Competition.
(From "The American Architect.")

The Doncaster Regional Planning Scheme.*

We have seldom known a great subject so well and adequately examined and considered as in the admirable report on the Doncaster Regional Planning Scheme, which is a model of the manner in which such problems should be dealt with and which, if applied to other districts, in course of development would enable us to avoid the errors of the past and leave our successors on infinitely finer country.

Doncaster is a populous and prosperous borough served by ample roads and railway lines. Lying outside the districts at present developed industrially, it has in the past been an agricultural centre, but with the increased mechanical means now at our disposal, the coal measures underlying the whole district are to be worked and developed with the result that the character of the whole area will, in the course of the next few decades, be entirely changed in character.

If this had happened thirty years ago, Doncaster would become another Leeds or Sheffield, a hideous conglomeration of shoddy and tasteless buildings, threaded by mean streets, its feature spoiled by the haphazard opening up of collieries and manufactories, its development gradually throttled by want of attention to communications by road, railway and water. Professor Patrick Abercrombie shows himself in problems of town planning to be at once a prophet and a physician; a prophet in his gift of forseeing how a town or district may be hampered in its development, a physician in the remedies he proposes for evils, the great majority of which are only partly apparent to the average man. The district dealt with in the report, is included in a circle of some nine miles from Doncaster, and is 18 miles across, comprising the areas administered by eight authorities. The Municipal Borough and Rural District of Doncaster, the Urban Districts of Wexborough, Tickhill, Bentley with Arksey, Ardwick-le-Street and Conisbrough, and the Rural Districts of Blyth and Cockney, the whole having an area of 169 square miles with a population of about 140,000.

The problem set is given such an area, the character of which is bound to be altered within a short space of time by the working of untouched coal measures; what steps should be taken to prevent the growth of the evils which seem to have been assumed, were incidental to development in the nineteenth century? Is Doncaster to be another Sheffield or Leeds, or may it be converted into a pleasing and convenient centre of activities? Of twelve coal pits enumerated, ten have been sunk since 1907, and this number includes two sinkings not yet completed, and these collieries are bound to be the forerunners of many others bringing in their wake manufacturing enterprise. The joint committee of the various areas concerned have had to decide whether it was advisable to consider and provide for an enormous extension of Doncaster itself, or, on the other hand, a moderate extension of the centre town combined with the creation of subsidiary towns round it, separated from each other by belts of country. We think they have wisely decided on the latter as being the preferable scheme. The next problem was to allocate the land most suitable for residential, manufacturing or farming purposes, and this has been governed chiefly by the nature of levels, the low-lying districts being allocated for farming or manufacturing, and the higher for residential purposes; Doncaster itself, standing on an isthmus of higher land between lower areas. These low-lying lands are to be prohibited for housing purposes, and allotted for farming and industrial ones. The Regional Committee's Mining Engineer, Mr. Humble, has supplied data which has enabled the Committee to calculate the amount of subsidence which will result from the working of the coal measures, and he has advised the system known as the "Long Wall," that is the gradual extraction of the whole of the coal without leaving pillars, in such a manner that the subsidence will be a gradual one, which will not result in causing fissures in superimposed building. The depth of the workable coal would average some 35 feet in thickness, and the total amount of coal even under the town of Doncaster alone, would amount to 4,550 million tons, which works out at the rate of 10 to 12 million tons a year, would last for over 400 years. The probable subsidence over the whole of the area in question would account for a subsidence of 5½ feet in 100 years, and when the whole of the coal is extracted to an average subsidence of 21 feet over the area. Mr. Humble advises to minimise trouble; that buildings should be confined to restricted areas, and that cottages should be built in blocks of not more than two or four, in order to lessen the results accruing from alterations of level. Pumping operations, so important in their results, should be dealt with regionally as affecting whole areas.

Purely agricultural areas should be preserved intact and kept free from flooding by pumping, but a large portion of the low-lying lands are suitable for mixed development, partly industrial and partly agricultural.

Special sections of the report deal with road and railway communications for the whole district in respect to which important recommendations are made with a view to their gradual adoption as time and circumstances permit. In this way every main road passing through the district is considered in detail, and when such roads pass through old villages, and would be unsuitable from their narrowness for increased traffic requirements, it is recommended that a by-pass should be made at the side of villages so as to leave their buildings uninjured while providing the greater facilities required.

For residential purposes, it is suggested that a datum line of the 25-feet or 30-feet contour should be adopted as the limit of such housing development; and the probable location of all increased housing areas in connection with existing villages, and in other cases in new positions, has been considered by the Committee.

Recreational areas have been considered, and this has been a factor in determining the advisability of forming several rather than one great centre of population for the district; but this problem is one that can only be fully determined by the specific requirements of each district under discussion. The treatment of freight and passenger traffic and of waterways form sections of the Report which concludes with a section on the results of the proposals made in the growth and development of Doncaster, and notes on the character of the existing villages comprised in the district.

The Report is illustrated by numerous maps and diagrams which we do not reproduce since our object is to point out the extreme importance of such surveys in relation to the future well-being of the nation and to bear testimony to the extremely able and convincing manner in which the Report is drawn up. If similar work could be undertaken all over the country and the results acted upon, we should have improvements carried out which would transfigure the face of England and would gradually eliminate much of the damage caused by a century of careless and unintelligent industrialism, the results of which have not only spoiled miles of country, but frequently in the end proved effective barriers against full commercial development.

The monthly meeting of the Council of the Incorporation of Architects in Scotland was held at 117 George Street, Edinburgh, on the 28th ult. Mr. T. P. Marwick, F.R.I.B.A., president, in the chair. The draft by-laws under the Charter were under consideration preparatory to being submitted to the Privy Council. There were elected: 1 Fellow, 6 Associates and 7 Students. The Education Committee were empowered to have the conditions connected with scholarships and prizes printed and distributed throughout the profession and secondary schools in Scotland. A sum of between £30 and £40 which had been collected from the members for the repairs fund of St. Paul's Cathedral was instructed to be forwarded to the Royal Institute of British Architects.

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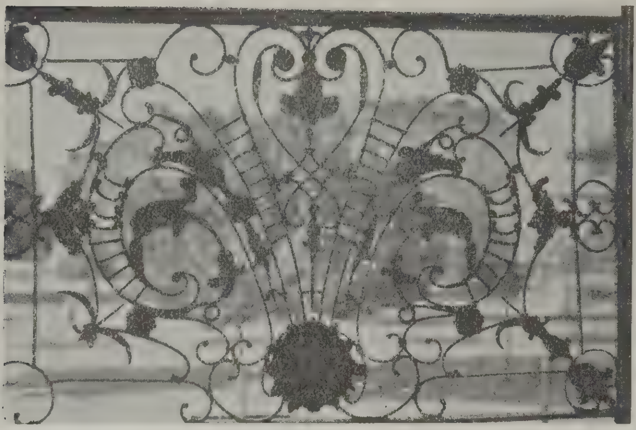
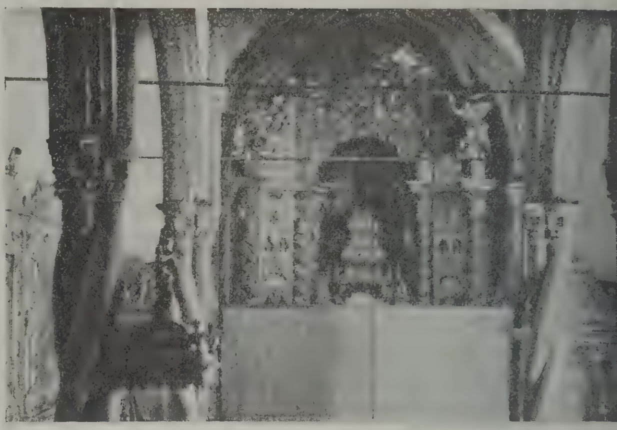
* "The Doncaster Regional Planning Scheme." The Report prepared by the Joint Committee, by Patrick Abercrombie, University of Liverpool, and T. H. Johnson, Doncaster, with an appendix on Coal Subsidence by Joseph Humble, Doncaster; The University Press of Liverpool. Hodder and Stoughton, London. 10s. net.



IRON BALCONY, HOTEL ESPERANÇA.



CHURCH OF THE CONVENT OF JESUS.

Notes from Portugal.

By G. A. T. MIDDLETON.

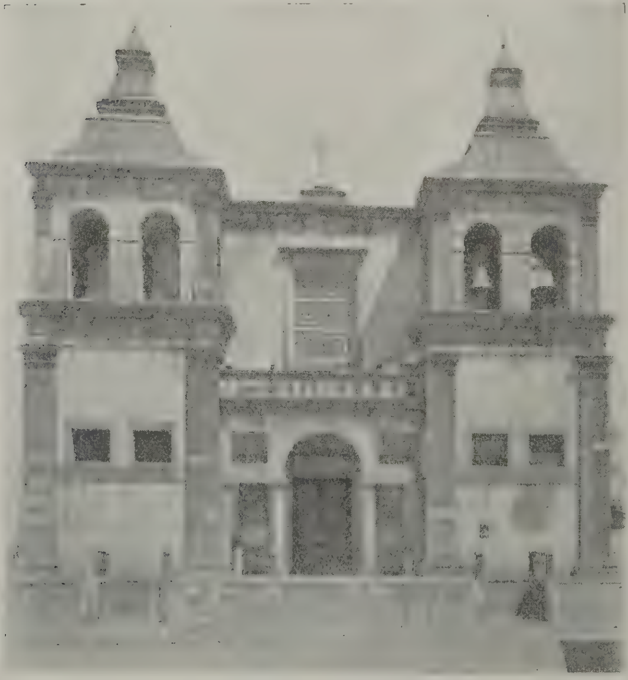
No. IX.—Setubal.

Setubal, though one of the most ancient towns in the Extremadura, does not contain much to indicate its antiquity. Possibly its most interesting feature is not only modern, but apparently almost accidental. It is a seaport, situated on a great land-locked harbour not far south of Lisbon, and is a great centre of the sardine fishing and canning industry. Apparently it had an esplanade at one time, with good houses facing the sea, built about the end of the eighteenth century. A panel of the iron balcony of one of these is illustrated, and sufficiently indicates the date; and there is a good deal of similar ironwork to be found, and the houses themselves are of the same character and of some importance generally—this one is now the most important hotel in the town, whose indifferent accommodation is accentuated by the fact that no meals whatever are served!

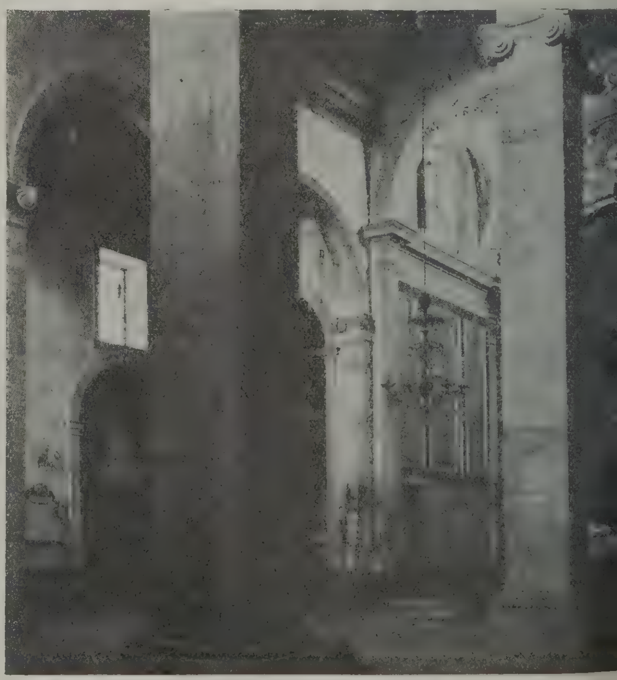
In front of these fine old houses, which evidently once faced the sea, there is a broad tree-planted boulevard, with another row of large buildings on the farther side, quite modern, with their backs to the water, the view of which is thus entirely cut off. The land on which these buildings stand, and the boulevard also, look to have been reclaimed. Of course, if there had been any desire to develop Setubal as a seaside resort, the arrangement would have been foolish in the extreme; but there is much to be said for it, bearing in mind that the foreshore is used for business and largely at night time, and that the bright lights of a seasid promenade would tend to drive away the sardinesupon which the prosperity of the place depends—the lesson being tha town-planning schemes must conform to practical needs

Three Renaissance churches deserve attention, thoug neither of them is of any great magnitude. Of these, tha dedicated to Sta Maria de Graça alone has anything lik an imposing façade—but in this case "imposing" is th right word rather than "beautiful." It possesses a settle sturdiness which is suitable to the granite with plastere panels of which it is built, with strong square towers t north and south of the western front, treated with Dori angle pilasters to both lower and upper storeys, connected so far as the lower storey is concerned, by a broad porch somewhat after the Palladian motive, but with squar openings on either side of the arch in place of Palladio' circles. This lower part of the design is far better tha the upper, and possesses, in fact, considerable nobility o proportion. The whole effect, indeed, would not be ba if it were not for the hopelessly incongruous tower terminals—to call them spires would be to degrade the term.

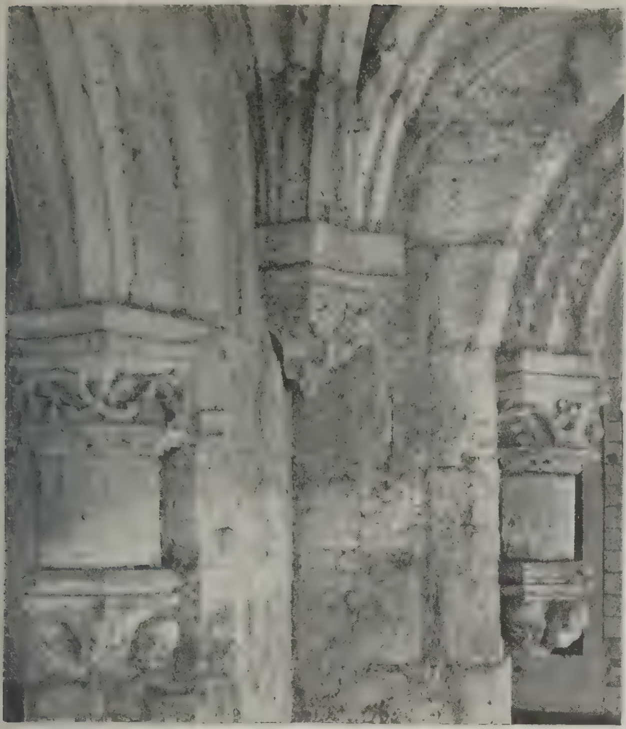
The church of Nossa Senhora is more notable for it interior, with its simple nave arcade, the arches of which wholly unenriched, spring directly from Ionic capital



STA MARIA DE GRAÇA.



CHURCH OF NOSSA SENHORA.



CORBELS IN CLOISTER, CONVENT OF JESUS.

on square piers resting on somewhat high plain pedestals—all in granite. The chancel is of the same width as the nave and scarcely more than marked by the piers of the chancel arch, and, while it is comparatively rich, it is by no means overdone. Good candelabra and a good pulpit with sounding board are in perfect harmony with the structure, whose proportions can be all the better seen because, as is frequently the case in Portugal, there are neither pews nor chairs upon the floor, upon the bare stones of which a woman may be dimly seen kneeling in the foreground.

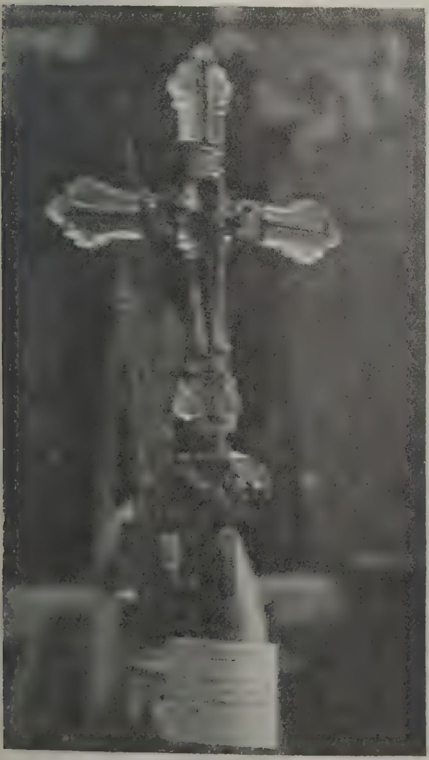
The interior of the church of the Convent of Jesus strikes an entirely different note, or series of discordant notes, for there is nothing good in it. It is illustrated merely as a curiosity, if possible to indicate how low pretentious architecture can descend. The photograph, too, taken through an iron grille from the western gallery, does not do full justice to its badness; for, though it shows the contorted cable columns, it does not display the dilapidated plaster work nor give any idea of the crude colouring put on in daubs, while much that is worst is hidden by a sheet stretched across the chancel arch; for the chancel alone is now used. The cloister is small, and probably never ranked higher than similar work in any other provincial city of Europe; but the three corbels from the fountain chamber well illustrate its quality, with the capitals of the corbels wreathed in the dying autumnal foliage of the latter part of the fifteenth century, and the bases resting upon groups of angels' heads, still exquisitely beautiful even in their decay.

That the convent was at one time extremely wealthy is indicated by the collection of church plate, etc., now stored in the western gallery of the church, each piece of which is unique and of a high order both of design and workmanship. The fifteenth-century crystal cross, with its silver crucifix, is perhaps the gem of the collection, and fortunately it was possible to secure a photograph of it, though not so good a one as could have been desired—for the lighting was bad and the legs of the camera tripod had to be insecurely perched on a shaky miserere.

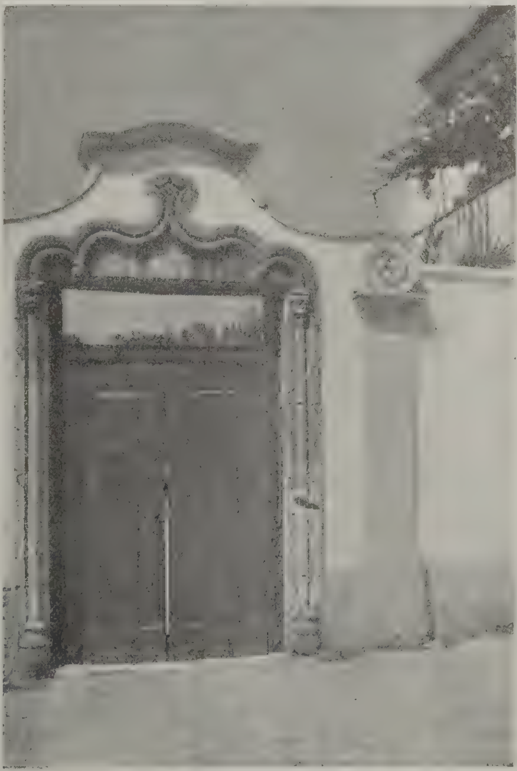
Here and there in the streets of Setubal, as in most old towns, one comes across curious fragments, such as wall fountains, balconies, or doorways like that of which an illustration is given, Manoëlian in character, and with its cusped head cut out of a single stone which serves as a lintel. Wherever it may have originally belonged, it now serves as the entrance to a garden through a wall of much later date than itself, and the resulting combination is certainly remarkable. Fortunately the abaci of the Gothic and Renaissance capitals have been kept at the same level.

MOORISH CASTLE, NEAR SETUBAL.

But more strange than a little thing like the doorway is the great Moorish castle some two miles distant from the town, with its sharply angular plan, like that of a star whose points are fashioned like the bows of a fighting galley with its under-water ram and its look-out turret. An attacking force would find itself compressed within the re-entering angles, and then under fire from port-holes, so placed that only a small force would be needed to hold the fort.



CRYSTAL CROSS, CONVENT OF JESUS.



DOORWAY IN STREET.

Architectural Association.

An ordinary general meeting of the Architectural Association was held on Monday, the 8th inst., Mr. Stanley Hamp, president, in the chair.

There were eight nominations for membership, and fourteen new members were elected.

Mr. Hamp announced a donation of £105 from Messrs. Higgs & Hill towards the Endowment Fund.

Mr. Laurence Turner, in giving an informal address on "The Workshop," said that if he had a son who wished to become an architect he would send him to a good, country builder for two years so that he might get an all-round knowledge of how to build. That he might know how joinery was constructed by working at it himself, also masonry and brickwork; that he might get first-hand information from the plasterer and painter. A man should be a good builder first and then learn to become a good architect afterwards. Probably members of the Architectural Association would disagree with him and say architecture, with a big A, was paramount. That if an architect made a design it was the builders' business and the Clerk of Works' job to see that it was well built and constructionally sound. Surely it was better that the architect should know that for himself? Without a thorough knowledge of materials and the right form of construction applicable to them, how could one acquire a right sense of fitness of design? That was fundamentary to all crafts—particularly the minor crafts.

Past and present instances of the lack of that knowledge were given by Mr. Turner. Recently he had been called to Kedleston to see what could be done to repair the exterior figures and architectural enrichments on the cornice, etc. On examining some circular pateral, which had fallen from the frieze under the ceiling of the north portico, he found they were made of papier-maché. That was hardly the right place to use such a material, and, even though protected from the rain, it was surprising it had lasted so long, for the house was built by Adam about 1772-3. Wren himself would have saved us much anxiety and money if he had had a more thorough knowledge of building and had forbidden the Norman method of constructing a wall to be applied to a classic building. We know he was put into a difficulty for want of stone, and so he allowed them to build an ashlar wall with a rubble filling. Within thirty years of its completion St. Paul's Cathedral had to be closed for repairs, which again were disgracefully done. As a modern instance, Mr. Turner said he once gave an estimate for a bronze tablet which was accepted, the drawing approved, and the model made and cast in bronze. When the architect saw it he said he did not want a raised letter inscription, but an engraved one; and yet he had accepted an estimate for a cast bronze inscription panel.

Unless you have had some experience how can you judge what is good or bad stone or what sort of sections to draw for the mason to work in a particular stone or marble? He had received sections to work in marble which were fit only for the joiner to work in a hard close-grained wood. If figured marble was being used, it was waste of good material and labour to work but the simplest of mouldings. Many marbles are so hard and faulty, the only possible way in which mouldings can be produced in them is by wearing the marble away by rubbing and the use of a grub saw. Beer stone and Portland require different sections to what Bramley Fall or the Chelynch Bed of Doulting do. It is very difficult to see the natural bed of some stones. The problem of how to joint and fix masonry may be evaded by going to a reliable mason, but it was much better for the architect to know how it should be done. Suppose, for example, that a memorial cross is being erected on the top of a tall shaft. How should the joints be made, the dowels arranged and the shaft fixed? The most important thing to see to is that good long dowels are used and that the dowel is fixed into the upper stone before it is bedded into the lower. Stump dowels are quite inadequate and are generally made the wrong way on. Bronze, copper or slate dowels must be used; but unless they are well set in the upper stone first one is never safe from the not uncommon catastrophe of its being blown down. In the case of small memorials it makes a considerable difference to the general effect if the right sort of texture is worked on the stone or marble. There is just the same difference as there is between blown and moulded glass. To obtain a modelled surface the stone must not be first of all worked to a dead level either by use of the rubbing bed or drag and then worked over with superfluous tool cuts, for that only makes matters worse. The stone must be worked to an even face by point and chisel, and finished with the chisel. In many instances such careful treatment of surface would be a waste of time. But if the work is small and refinement of finish is required it just makes the difference between giving it an interest which can be acquired in no other way. Accidental effects can be obtained by a knowledge of one's material. Some oolite stones when sawn have a delightful accidental ripple left by the vibration of the saw, and the effect of this on a large ashlar wall is to give it additional interest. Beer stone is most useful for interior decoration, though carved work in it soon looks very dead. Ancaster stone is a very good stone for carving, but is dangerous to use out of doors. Bramley Fall is very excellent to use for carved monuments which are coarse and big in design. In his opinion a coarse-grained stone gives the most satisfactory results in carving. Carvers hate it because it is difficult to carve, and that is the reason why it looks well. A stone that is easily cut requires great delicacy in modelling the broad surfaces of the ornament, otherwise it looks smug and cheap. Models are detrimental to the carver's craft. In making drawings and sections for masons' work in cases where there is much interpenetration of mouldings, it is better to draw one section on the top of another than to draw them separately. If they become involved, another section will readily make them distinguishable.

Most of the modern plasters and cements are, said Mr. Turner, too hard and brittle. The rough plaster on which they form the finishing coat is not strong enough to hold them. They are very conducive of sound and crack badly. In ordinary lime plastering on laths the architect should see to it that the laths are not nailed too close together, as is nearly always done nowadays, so that a good hook of plaster on the back of the latter is produced by the trowel always being worked one way. In fibrous plaster casts, the wood, canvas and plaster is too often starved, with the result that the ceiling soon shows every lath and becomes dirty in a few months, because the air gets through it. One of the difficulties in fibrous plaster work was to hide the joints in a plain surface. Mr. Turner said his own method is to leave an inch and a half rebate on the edge of each cast that has to butt against the other, and then stop the joint with canvas and plaster; this should be left for a day or so and then cleaned off. The trouble is that plaster swells as it sets, and consequently a ridge is visible unless a wide joint is made and time given for the plaster to finish swelling. In making Portland cement casts, the secret for making them stand against frost is to see that the cement is properly slaked. When the cast has set hard it should be taken out of the mould and put under water for a week or a fortnight, and, provided the cement is good and the sand clean, a casting will result which will stand any weather. Compo is a material which might be much more used than it is for decoration. If carefully made and applied it will last as long as any carving, and it forms the best of surfaces on which to paint or gild. Models for inscriptions in raised lettering are best carved in plaster. The lecturer explained his own method as follows: The letters are drawn and then the drawing is placed face downwards on the slab of plaster and gently rubbed; this transfers the pencil drawing to the plaster, and the letters are carved inside out, forming a mould. When a cast is taken of this the letters stand out in relief.

The first things a joiner ought to know are—how to choose his woods, to understand the different qualities of wood, what their characteristics are and how to provide for their eccentricities. An architect should know something more than a smattering about these matters. What woods are more liable to be attacked by worm and how to guard against it. How woods will shrink. In what way are they liable to crack or warp. All woods do not crack in the same way, neither will the same wood always crack alike, but much depends on how they have been cut from the log. Sequoia does not crack with the grain but in a diagonal direction. All woods should be quartered to exhibit the beauty of the grain except some few of the hard woods. Most of the hard woods which come from hot countries are particularly bad with regard to shrinking. For plain surfaces such woods require to be veneered and the wood they are veneered on to should be veneered on the other side as well, so that there may be equal tension on both sides. Boarding should never be jointed together by dowels unless it is to butt one piece of end grain to another. The dowels, being the reverse way of the grain, will not shrink as will the board, and so the joint opens. As to the old controversy of machine *versus* hand-made mouldings, there is nothing in it. If both are properly finished no one can tell the difference. But there is a vast difference between a carved moulding and a moulding made with planes.

The tendency nowadays is to specialise in everything, with the result that the good, all-round craftsman is becoming more and more scarce. The men the lecturer said he liked to get hold of are those who had been brought up in workshops in small country towns where they have to apply themselves to all sorts and conditions of work. The large contractor is an evil, possibly a necessary one, because all his men are specialists. He (the lecturer) would implore architects to patronise as far as in their power the small builder or contractor, so that the English may not lose the character of being handymen which her sons have had for centuries. Trades unions have not helped in this respect.

Mr. Turner concluded with the following general advice :—"Do you habitually think over what has been said or read at any lecture you go to when you come away ? Try and get at least one bit of information out of any paper and make a mental note of it. If you do not exercise your memory in this way I fear you will lose a good many opportunities that have been offered you to learn. If you think you already know, don't be above being told again. I have many times witnessed a visitor miss a piece of information which I know the workman would have given if the visitor had not exhibited a superior knowledge, which made the workman draw back into himself. Never be too old or superior to learn, especially of the men who are actually at work on any particular job."

The vote of thanks was proposed by Mr. Charles Spooner, seconded by Mr. Tate, and put to the meeting by the President.

Mr. Charles Spooner said he had hoped Mr. Turner would pitch into architects, as he felt sure they would deserve it. Nowadays an architect was expected to be a specialist in everything, and his mob was intricate beyond words. His position ought to be made very much more clear than at present, and he ought to occupy the position of the conductor of an orchestra of the crafts—a specialist in none, but familiar and sympathetic with all.

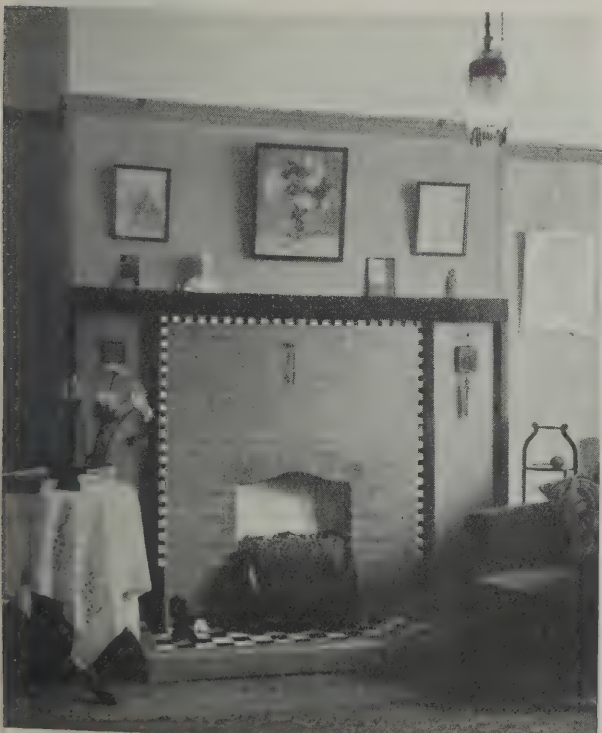
Mr. Laurence Turner having replied to questions raised by these speakers and Mr. Gilbert Jenkins, the meeting terminated.

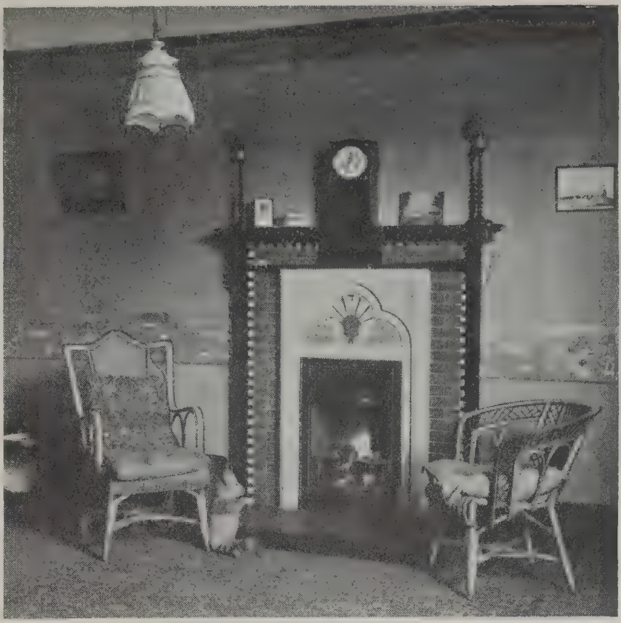
Examples of the Work of Mr. Edwin Smyth.

Mr. Edwin Smyth, sculptor, of Chester Road, Sunderland, has sent us photographs of two interesting chimneypieces designed and carried out by himself for his own house. He says of them :—

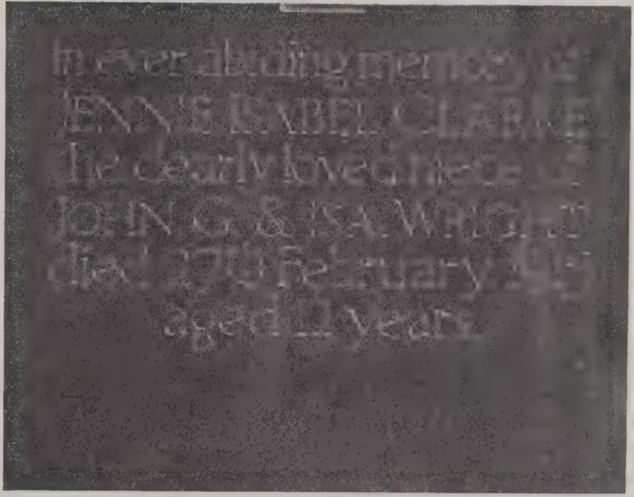
That with gas fire was designed to cover the full width of breast, and avoid the patch of wall paper and bit of skirting board which is usual. It is a simple arrangement of pieces of straight wood, rounded edges, panels of asbestos sheet, can be papered to obtain a change, or they could be filled in various ways with different materials. There is no shelf. Gas fire easily removed and barless coal fire fixed in a few minutes. Gas connection passes under some of the tiles.

The chief feature of the other is a brilliant coloured mosaic panel ; winged sun, set in stone ; red brick hearth, oak fender and surround ; check border, glazed tiles ; shelf designed to take its candlesticks and clock ; clock case, of very simple design, four pearl buttons inlaid ; inscription carved and gilded under the dial :—"Come what, come may, time and the hour runs through the roughest day." Boiler at back of fire, six inches back from the actual fire, gives more hot water than we can use.





Mr. Smyth also sends us an illustration of a lettered headstone which is very pleasingly spaced and composed.



Forthcoming Events.

Friday, January 12.—London Society. Meeting at 18 John Street, Adelphi, W.C.2. Paper by Mr. J. P. Orr, entitled "The Transport and Open Space Problem in City Development." 5 p.m.

—Institution of Heating and Ventilating Engineers. Meeting at the Engineers' Club, Coventry Street, W. Paper by Dr. B. R. Wingfield, Ph.D., M.I.E.E., entitled "Automatic Temperature Control." 7 p.m.

Wednesday, January 17.—Royal Society of Arts. Meeting at 18 John Street, Adelphi, W.C. Paper by Mr. C. A. Klein, entitled "Hygienic Methods in Painting—The Damp Rubbing-down Process." 8 p.m.

—Incorporated Institute of British Decorators. Meeting at Bradford. Paper by Mr. W. W. Davidson, entitled "Stencils and their Use." 7.30 p.m.

Thursday, January 18.—Edinburgh Architectural Association. Meeting at the Royal College of Art, Lauriston Place. Paper by Professor J. Baldwin Brown, M.A., entitled "The Work of the Mediæval Builder." 7.30 p.m.

—International College of Chromatics. Meeting at Caxton Hall, Westminster, W. A talk on "Colour in Chinese Art." 8 p.m.

A City on Piles.

Written and Illustrated by Ruth Cobb.

The city of Amsterdam, one of the great ports of the world, is built almost entirely on piles. Before the twelfth century it was only a small fishing village, standing among the marshes bordered by an arm of the Zuider Zee on to which ran the River Amstel. One of the Counts of the land had a castle close by and was attracted by its situation, and a dam or dyke was built to prevent the waters from continually overflowing the flat land. The village soon grew into a town, which was fortified and began to gain in importance ; the name of Amsterdam was given to it from the two most important points of the situation, the river and the dam.

Before the war with the Spaniards the city had become an important trading centre, but not so great as that of Antwerp. After the fall of that place many of its merchants moved to Amsterdam, bringing with them a great increase of trade.

The city has not altered its form since those days. It is built in the form of a crescent intersected by four parallel canals, bordered by trees, dividing it into islands connected by many stone bridges.

Before any building can be erected in Amsterdam, piles have to be driven into the loose sand to secure a firm foundation. They often have to go in as far as 40 to 50 feet before they reach the firmer clay below ; the mud is supposed to have a petrifying effect on the wood and so prevents decay. It is an extraordinary sight to see the steam-driven pile driver at work preparing the foundations for a house. So loose is the soil that the pile often is knocked in a yard by each blow, and it does not take long before it is only a couple of feet above the level—a quicker process than when they had all to be driven in by hand in earlier times. After sufficient piles are in place—and it takes some hundreds for a fair-sized house—wooden girders are placed across them, and then the actual building begins on the top.

Erasmus, the great scholar, who was born at Rotterdam, teased the inhabitants of Amsterdam for living like rooks in the tops of trees, though the same kind of foundations are used in other parts of Holland, where houses have literally to be built into canals, but not to such a great extent.

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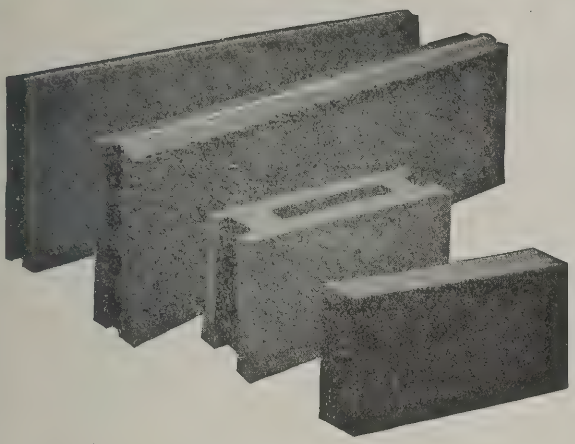

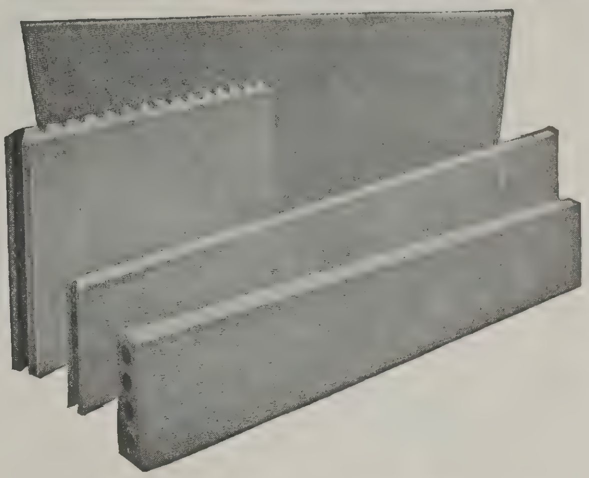

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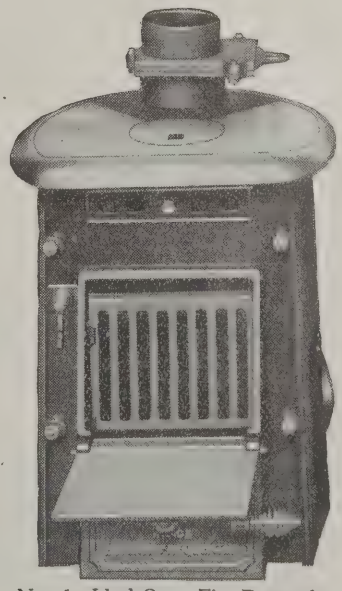

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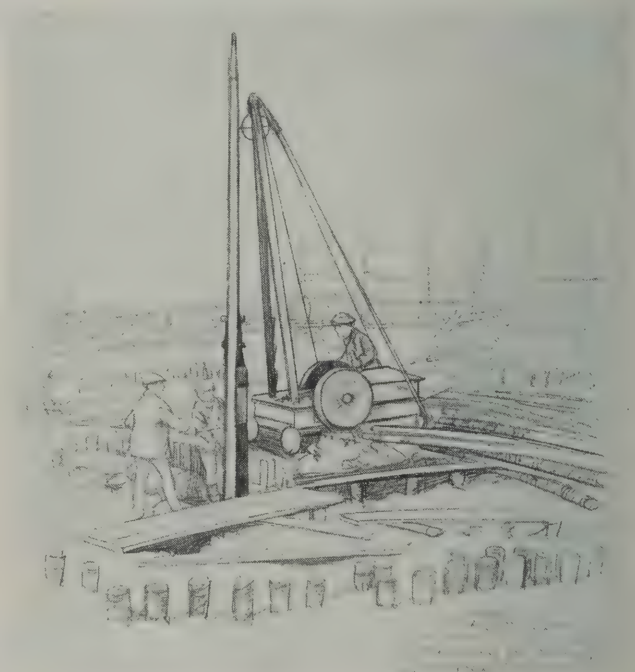
In 1822 there was a great disaster in Amsterdam, when the Corn Exchange, owing to the weight of the grain in it, sank into the mud.

Many of the finest houses are in the Heronsgracht and Kaisersgracht. They are largely used as offices now, but were once the most aristocratic part of the city. These houses have curiously shaped gables, often ornamented with beautiful carving. Most of them are extraordinarily narrow houses, sometimes of five or six storeys, with, in consequence, almost vertical staircases. It is owing to this that such a number of the houses have outside pulleys, and it is not an uncommon sight to see a heavy piece of furniture dangling in mid-air before being taken in through the window, the frame of which is painted white, a characteristic of Dutch houses and which shows conspicuously against the dark brickwork.

The roadway between the houses and the canal edge is paved with cobbles; those nearest the houses, though at the same level, are smaller and serve as the pavement, and are supposed to be reserved for foot passengers only, to protect them from the numerous bicyclists, for Holland, being a flat country, is a world on wheels.

Unlike Venice, the canals in Amsterdam are hardly used for passenger traffic, but there is a great deal of traffic of other kinds. Barges are constantly being punted along the shady canals laden with flowers and vegetables from country places many miles away, and much larger boats are to be seen lying in the Amstel, by the busy wharves, loading up with merchandise of many kinds.



From Amsterdam runs the North Sea Canal, which was made to allow of large vessels entering the harbour without having to go round by the north of the Zuider Zee. In the harbour are to be seen ships from all over the world and particularly from Java and the other colonies which bring Holland so much of its wealth.

Moving about the city with its stately buildings and crowded population, and with its extraordinary air of business and solidarity, it is difficult to realise the curious foundations it rests upon.

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The Development of Library Buildings and Fittings.*

By H. Avray Tipping, M.A., F.S.A.

The "Housing of Books" is a matter which many of you may well find distressingly difficult. The space and the cost are requirements most difficult to meet, and if and when you have met them it takes thought and energy to work out the arrangement and rearrangement that make easy the handling of the books to rapidly answer the calls and conveniences of readers.

This insistent and somewhat crushing problem we will leave aside for the moment in order to review how the subject has presented itself to past generations of librarians. There is an immense difference between the circumstances that presented themselves to the mediæval keeper of books and to yourselves. We shall find a never ceasing and yet gradual and conservative process of change, arising from the constant tendency of books to increase in number—an increase slow until printing was introduced; then much quicker; then, in our day, so rapid as to put such institutions as the British Museum and Bodleian Libraries in imminent danger of submersion under the printed flood.

The mediæval monk was at once the reader and the maker of books. He studied what his monastery had, and he copied what another monastery would and could lend. With all that the number of books was so small that all could be kept in one or two little lockers or cupboards, as we call them, almeries or aumbries as their users named them. They were generally structural wall recesses and therefore of stone except for the wooden door. They were contrived in various places for various purposes—for instance in the chancels of churches for holy vessels. There they often remain (without a door) whereas elsewhere they have gone, so that to many people an aumbrey merely means a recess in a chancel wall. Yet even as late as the 16th century it was the usual term for what we call a cupboard, but still generally meant one or more boards or a few shelves on which to display drinking cups and other vessels. Thus Horman, a prolific writer under Henry VIII. says, "all my lytell bokes I putt in almeries." In mediæval monasteries, especially in the twelfth and thirteenth centuries, such book aumbries were structurally contrived in the back wall of cloisters, because it was in the cloisters that the monks studied. We should not consider that either a comfortable or a convenient arrangement. The cloister openings or windows were unglazed and although the cloister garth, on to which they looked, was a sheltered spot, the spaces inside the windows would be, at many seasons, cold for the monk and damp for the book. Nevertheless, a fitting of wood screens and of board and bench made the spaces into possible nooks for scholars, and we read in the "Ancient Rites of Durham":—

"In every window of the cloyster were three pews or carrels; where everyone of the old monks had his carrel several by himself, to which, having dined, they did resort and there study their books."

In so exposed and frequented a place (the cloister was the monastic corridor) it is quite clear that precious manuscript books could not be left lying about, and therefore, except when actually in the monks' hands, they were kept locked in the aumbries. Even where these were near at hand in the cloister this was a cumbersome process, and as better and fuller ideas of housing developed a special room where books could be both kept and studied came to be desired and erected. If you go to Tintern Abbey you will find traces of the old arrangement and evidence of its supersession. The original cloisters there, as was usual in the twelfth and thirteenth centuries, were of wooden pentice roof construction, the roof timbers starting from stone corbels built into the walls of the encircling buildings and descending to the stone or wood arcading that formed the roof supports and window openings on the side of the garth. In the west wall of the north transept at Tintern you will see two recesses, one open as originally built, the other filled in. Before the Dissolution—whether fifty or a dozen years before I cannot say—the rebuilding of the cloister had been undertaken, and the pentice roof was to give way to the usual fine fifteenth century groined vaults with their ribs meeting in a cluster and resting on columns or shafts not only on the window but also on the wall side. These new wall shafts, which had to occur just opposite to those on the window side and according to the symmetrical spacing of the latter, often interfered with the older features, such as doors and aumbries on the wall side. That happened at Tintern. The only part of the new cloister that was erected was along the west wall of the north transept and as a wall shaft descended in the middle of one of the aumbries the latter had to be sacrificed. But if two aumbries had been needed in the thirteenth century it is certain that one was insufficient in the late fifteenth or early sixteenth, when books had multiplied. Thus it is clear that when or before cloister reconstruction was undertaken the housing of books had been reconsidered and a better place provided. This re-housing movement, however, arose not so much in monasteries as in foundations where studies were pursued, but where there were no cloisters. Such were Oxford and Cambridge Colleges, and it is at Merton College, Oxford, that we find a full and structurally untouched example of the mediæval library, that is a specially contrived and fully enclosed space where books could be housed and read. Merton was founded in 1274 and a century passed before the library building was undertaken. It occupies the first floor of much of two sides of a quadrangle, the total length of the two limbs being a little less than 100 feet.

The scheme of cloister carrels was preserved, but the building being twenty feet wide and lit on both sides, the arrangement was of a central walk with the reading recesses to right and left. Each one had a single light window, and the enclosure took the form of a desk and shelf, in front of which was a bench. The books were arranged along the shelf or shelves and could be taken down by the reader who then sat on the bench and opened the book on his knees, or he stood and read it resting on the broad shelf which perhaps sloped as a desk. But, although there was now some seclusion, the library was open to readers, and readers then—as perhaps some of you find now—were apt, in a fit of abstraction, to carry off books with a full intention of returning them—only the intention is apt not to fructify. So every book was chained, and one of the librarian's duties was to see that the chains were in order and not entangled.

Whilst Merton was making its library building, William of Wykeham was erecting his foundation of New College and along the east range of his principal quadrangle he contrived a library some 70 feet long. This was remodelled by Wyatt, whereas at Merton, although the interior fitments were somewhat altered in Jacobean times to accommodate more books, the library retains its original character and disposition. That applies also to another library dating half a century later.

The Cathedral Establishment of Wells was not of regular monks but of secular canons. Nevertheless it was a foundation where learning and education flourished and even in the thirteenth century it had better book accommodation than cloister aumbries, for there are clear references to a *librarium* occupying the west side of the north transept. But in 1424 Bishop Bubwith died and left money to build a new library over the eastern cloister walk. After an extension had been completed in 1480 it ran a length of 165 feet with a width of 14 feet, and, except that the divisions (which owing to the narrowness are, as in cloister carrels, on one side only) are now composed of taller and more numerously shelved cases for books not chained, the arrangement is still that of mediæval times and well worth your visit.

The year that saw the completion of the extension of the Bubwith library at Wells also saw the books belonging to the University of Oxford removed from their old quarters in St. Mary's Church to the new building contrived for them above the new Divinity School. The project of the Divinity School was started in 1427 when the site was acquired, but the school and library were very far from completion twenty years later, at the death of Humphrey Duke of Gloucester and fourth son of Henry IV., who had been a beneficent patron and donor of money and manuscripts. This event caused delay, and 33 years passed before the books were transferred to the new library.

In the middle of the next century evil times fell on it. The vicious habit of destruction and pillage which the Dissolution of the Monasteries developed in Henry VIII. and his profiteers led to the stealing of many of the books and manuscripts in Duke Humphrey's library by royal visitors in 1550. Neglect of roof repair and the breaking of windows brought decay to the fabric, and the offer in 1597 by Sir Thomas Bodley to repair and replenish it came none too soon. That was done by 1602, but the rapid multiplication of books soon called for an extension, which Sir Thomas undertook in 1610 and completed in 1611. In the interval a new scheme of disposing books was discussed and adopted. Whereas the carrel system was retained and is still to be seen in the old refitted portion, Bodley's addition was fitted with a gallery carried on oak posts and permitting the storage of books up to the ceiling. That was a great departure and only much later became the adopted plan for both public and private libraries where the building was of considerable height. You will find a good early nineteenth century example of it at Chatsworth fitted by the sixth Duke of Devonshire in 1815. The carrel system, and even the chained book, prevailed during the seventeenth century. Indeed, in the old or carrelled part of the Bodleian the records of the purchase of chains continue down to 1751, and the earliest note of their removal occurs in 1757. The carrel system recommended itself even to Sir Christopher Wren, whose mind was quite open to new ideas if he thought them advantageous.

In 1675 Dr. Barrow, Master of Trinity College, Cambridge, in order to shame the University authorities, decided on erecting a

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* A paper read at the forty-fifth annual meeting of the Library Association in Cardiff.

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splendid new building as a college library. It was designed by Wren, who took great pains with its details and decided on the arrangement of "cells to study in." But as the building was very lofty he placed his window sills high enough to have under them bookcases, which rise, like those forming the carrels or bays, to a height sufficient to admit of ten or a dozen shelves, and thus to accommodate what at that date was considered to be an enormous collection of books. The library is interesting, not merely from its architecture and from the scheme of its woodwork fittings, but also from the design and detail of the latter. Rough sketches of the bookcases are among the Wren drawings, at All Souls, Oxford. They are of oak finely moulded and enriched by joiners and carvers such as Cornelius Austin. But there are also delightful limewood carvings, representing the elaborately mantled arms and devices of the leading contributors (such as Dr. Barrow himself) and executed by Grinling Gibbons. Celia Fiennes, visiting the library on 1697, describes them as "Ye finest Carving in wood of flowers birds leaves figures of all sorts as ever I saw." As she saw them they remain to this day.

Very similar but on a smaller scale is the library at Queen's College, Oxford, carried out fifteen years later than that of Trinity, Cambridge, by Nicholas Hawksmoor, Wren's assistant and draughtsman. The woodwork, likewise of oak, is of exactly the same general form and is exquisitely designed, wrought and carved.

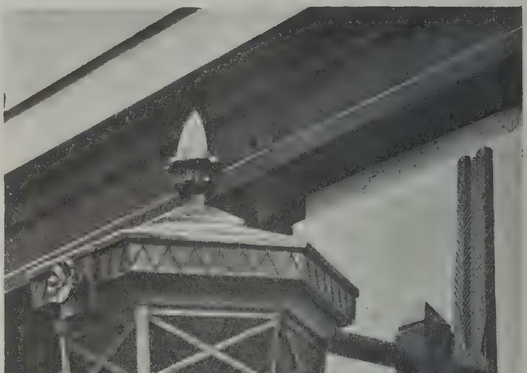
Meanwhile private libraries were becoming usual, and in some cases included numerous books. Such was that formed by Samuel Pepys, which he bequeathed to Magdalene College, Cambridge, where the books are retained in the bookcases that he had made for them. They are early examples of the movable bookcase of standing press form with glazed doors to enclose the books. In material, design, and carving they belong to the period of Wren's Trinity College Library bookcases, so that they were probably made in Pepy's later years—he died in 1703—and are not those mentioned in the Diary, where he tells us how in August, 1666, "comes Simpson to set up my other new presses for my books." Such bookcases did not become common until well on in the eighteenth century, when Chippendale and other George II. cabinet makers produced them finely in mahogany, while those we more often find in our important country homes, sometimes in sets and each eight or ten feet wide, are of the Sheraton period in veneer and inlay.

Long before that, however, private collections of books had reached proportions that demanded a more extensive scheme for their accommodation. The Whig magnates were expected to be not only patrons of but proficients in arts and sciences, learning and literature, and several of them zealously collected books and had libraries which were of infinite service to scholars and authors who obtained leave to use them. Such were two noted collections formed by members of the same family but no longer owned by their descendants. Charles Spencer, even before he succeeded his father as third Earl of Sunderland in 1702, had begun to make his name as the greatest collector of books of his day. Most of them, however, he did not house at his country seat of Althorp, but in his town mansion in Piccadilly (on the site of the present Albany) where a suite of rooms 150 feet long was fitted up to receive them. His elder son, a grandson of the great Duke of Marlborough, became by special remainder third Duke of Marlborough in 1733, and inheriting Blenheim in 1744 he transferred his father's library thither, and there it remained until dispersed in 1882. Althorp went to his younger brother, who was created Earl Spencer and was succeeded in title and estate by his son George in 1782. This second Earl largely rebuilt and somewhat extended Althorp, and, inheriting his grandfather's love of book collecting, needed all the space he had for their accommodation. The old library upstairs was given up and the new "long library" stretched from end to end of the ground floor of the West wing. But the collection grew and other rooms had to be fitted with bookcases up to the ceiling, until, on the ground floor, only the dining room and one drawing room were exempt. It was reckoned in his day the largest private library in Europe, and although it is no longer at Althorp, it fortunately escaped dispersion, for it was sold some thirty years ago by his grandson to Mrs. Rylands and was presented by her to the City of Manchester.

For such collections as those of the Spencers the lining of the walls of rooms with shelves from floor to ceiling was necessary to provide accommodation, and when the room was lofty even a gallery did not prevent books on the upper shelves of either section being difficult of access, if not almost dangerous, for it meant and still means the use not merely of steps but of ladders. Certainly George, second Earl Spencer, did his best to get at his books comfortably even with such an arrangement. Cabinet makers made him light and elegant little stairways running on castors. The gradient was easy, the handrail effective, the platform on the top convenient. Indeed, there is one there still where this platform is fitted with stool and reading desk so that you could comfortably consult your high-placed book of reference and put it back without descending to the ground. In a great house, with large rooms, few readers, and volumes—as at Althorp in the second Earl's time—numbering no more than 70,000, this was not a very unpractical arrangement. But multiply that number by ten, fill the ground space with desks for many readers calling for many books and this system becomes cumbersome and inefficient. Hence the modern book store with its eight foot high storeys of iron-gridded pathways between rows upon rows of shelves. It has more likeness to a rabbit warren than to an architecturally conceived library. But it does enable books to be shelved in vast quantities and to be got at and replaced without detriment to body or brain, while electric light makes all clearly visible even in the congested areas of a great town library.

What contrasting pictures we have evoked! There, in the past you have the placid monk, who after his dinner silently and serenely paces to the aumbrey and selects his book from the few that are there. Then he steps across the cloister to his carrel "several by himself," where he is away from the world—even from his fellow monks—and as a change from his book raises his eyes to look forth through the traceried apertures upon the still and sunlit grassy garth dominated by the soaring heights of the towered minster. Here, to-day, you come across the busy, sometimes harried, band of library assistants, lists of readers' books in hand, passing from one to another of the hundred shelved and thousand volumed floors of the store, buffeting their fellows in their quick clattering movement along the narrow iron ways.

Is that the last word? Has the manner of housing books been finally settled? Surely not. This mechanical and organising age will invent further developments, perhaps not at all conservative but quite revolutionary in method and effect. Thus the picture of to-day will contrast with the circumstances that present themselves to the librarian of the future as strongly as with those of the mediæval keeper of the chained books.



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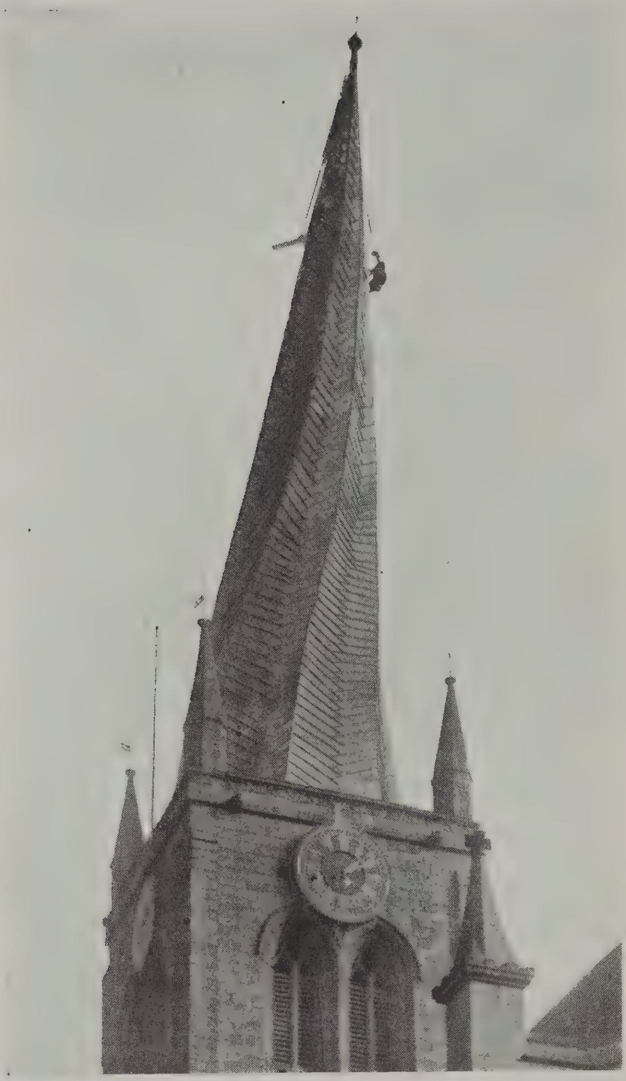


CHESTERFIELD SPIRE: SOUTH SIDE.
Photo by C. H. Nadin, Chesterfield.

Chesterfield Crooked Spire.

By H. Ryde

(Hon. Secretary, Restoration Committee).

The well-known landmark, 230 feet high, which has dominated the old town of Chesterfield since the end of the fourteenth century is in peril of falling; and unless drastic overhauling and the necessary strengthening repairs are fully carried out, this ancient pride of Chesterfieldians is likely to be, in the near future, a memory and a tradition only; for the spire is rapidly perishing from age and decay.

Such-like statements have been heard before in the "Ancient Borough," for from time to time, at recurring periods, its inhabitants have been disturbed by similar reports that their curious twisted spire was in danger of collapsing. Had not the fear of a disaster urged them at these times to add additional supporting timbers within the structure, such would have doubtless really happened. Now that electric light has been installed, to facilitate the repairs proceeding, weaknesses and defects, not hitherto realised, have been shown up only too plainly.

Owing to the ravages of worm, wet, rot, and beetle, the original stability has long since gone, quite apart from any racking, due to the warping, or subsidence of its timber frame. Chesterfield folk do not really regard their steeple as an object of symmetrical beauty—for it is far from being so. Rather from an ever-present anxiety to preserve so unique a curiosity—world-wide in its fame—local alarmists have at times cast doubt on its security, and thereby created somewhat of a panic in the town.

The first of these we find recorded in the year 1817, when Messrs. Hodkin and Tomlinson, two Chesterfield builders, having made their examination, reported that "if it be suffered to remain unsupported a few years, it will certainly become in a dangerous state." Then Mr. W. Wilkinson, a Mansfield surveyor, gave his advice, in December that year—"the only safe thing to do was to take down the whole of the spire"; while a further opinion, received from Mr. E. W. Drury, a Sheffield architect, was to the effect that it was impossible to repair and unsafe and dangerous to remain.

Happily these views did not meet with the approval of the vestry meeting then convened, for many present were keen on retaining their steeple under any circumstances.

Other advice was sought, when Mr. John Ward, also a Sheffield architect, gave a more cheering report, and it being confirmed by three practical carpenters, the spire was duly repaired and allowed to remain as it then stood.

At that time huge supporting timbers were inserted, which are shown in the architect's plan of the base.

No further public anxiety seems to have been excited up to the date of the general refitting and restoration by Mr. G. Gilbert Scott in 1843. (According to his "Memoirs," Chesterfield Church had been his first effort in that direction.) But in a further report—presented in the 'sixties, after he had become Sir Gilbert—he expressed his surprise to find that a feeling existed in favour of destroying the spire, for he considered it a most remarkable and interesting structure, giving character and quaint antiquity to the aspect of the church.

In 1855 Mr. W. G. Coldwell, A.R.A., read a paper before the Royal Institute of British Architects, in which he made it clear, by drawings of the spire and its timber construction, that the stability of the original structure was gone, the spire being upheld by the timbers subsequently added.

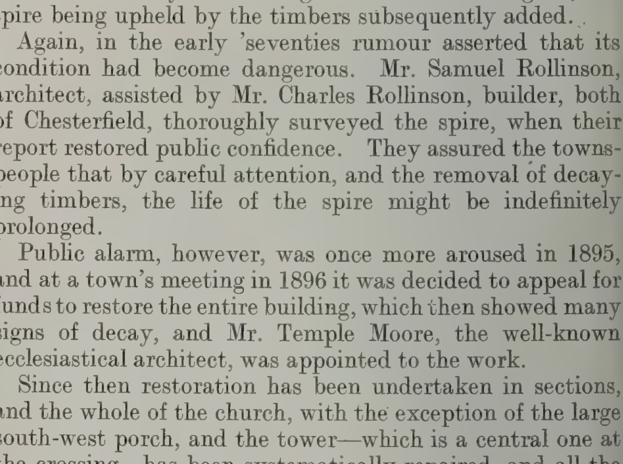
Again, in the early 'seventies rumour asserted that its condition had become dangerous. Mr. Samuel Rollinson, architect, assisted by Mr. Charles Rollinson, builder, both of Chesterfield, thoroughly surveyed the spire, when their report restored public confidence. They assured the townspeople that by careful attention, and the removal of decaying timbers, the life of the spire might be indefinitely prolonged.

Public alarm, however, was once more aroused in 1895, and at a town's meeting in 1896 it was decided to appeal for funds to restore the entire building, which then showed many signs of decay, and Mr. Temple Moore, the well-known ecclesiastical architect, was appointed to the work.

Since then restoration has been undertaken in sections, and the whole of the church, with the exception of the large south-west porch, and the tower—which is a central one at the crossing—has been systematically repaired, and all the original work carefully preserved wherever possible.

First to be restored was the section consisting of the two south-east chapels, and the spire formed the second, undertaken in 1898.

Mr. Temple Moore's report then confirmed those previously received. He considered the spire to be in a fairly



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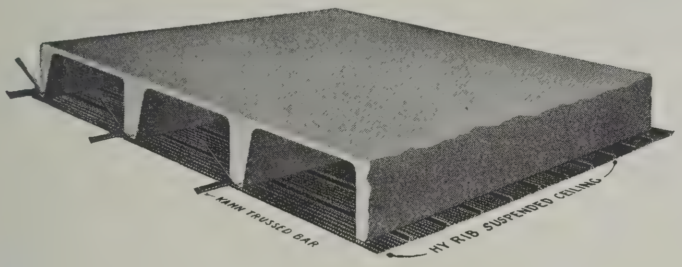

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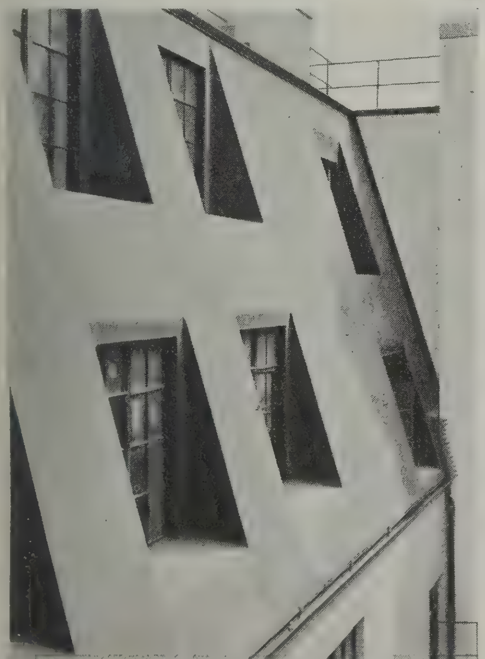

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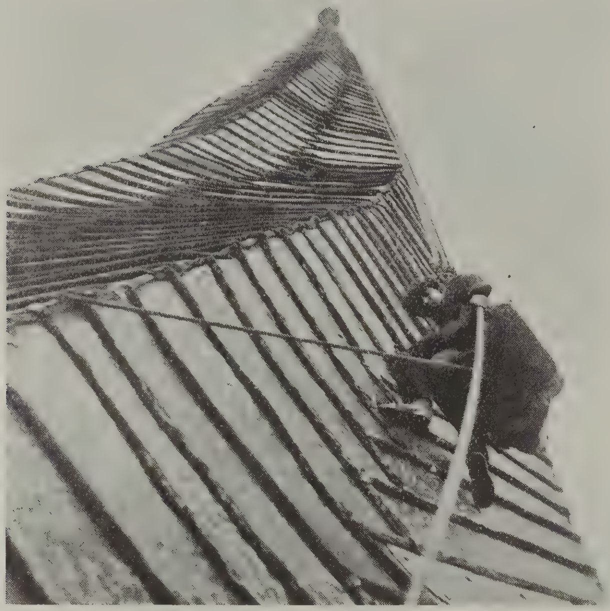


DETAIL SHOWING TWIST IN THE CHESTERFIELD CROOKED SPIRE. Photo by T. EVANS, Chesterfield.

sound condition, thanks mainly to the very careful restoration of the timber framing carried out many years ago: "Extra bracing has been carried out with special view to supporting the spire on the leaning side, and the two extra timbers about 10 inches by 10 inches, framed at the feet into stout dragon ties, scarfed and bolted at the joints, and running some 75 feet up into the spire, on the south and west sides of it, assist in giving it great stability where most needed, as many important timbers are badly rotted."

This final phrase was disturbing, and the repairs in 1898 cost £300, although Mr. Charles Rollinson—who was instrumental so often in patching up the spire—put in all the timber at cost price, and had it specially selected. A great beam of Norwegian oak, 48 feet in length, 9 inches by 9 inches thick, was then braced into the S.S.E. angle to guard against further deflection towards the south-west. Those responsible for this achievement were most optimistic. One ventured to assert that beyond ordinary repairs, necessitated by stress of weather and decay in the lighter woodwork, there would be no need of further restoration for another two hundred years. Unfortunately, this is far from being the case, for the present state of the interior shows they had overlooked a tiny detail, but one of primary importance, for the architect in charge, Mr. Leslie T. Moore, after having inspected the constructional timber of the spire with the electric lighting for the first time, adds to his able report that "the lighting reveals much that could not be seen before, and it is clear that a considerable portion of the original timber has suffered from the ravages of the beetle 'Anobium,' popularly called the 'Death Watch Beetle,' a pest which destroys the inner core of the wood." This same species of insect caused the trouble to the Westminster Hall roof (repaired 1914), and also at the Staple Inn Hall, London. Both of these were visited by Mr. Moore in order to study the treatment adopted. "Very fortunately this beetle—which appears to have eaten himself out of existence—has not, so far as can be judged, attacked the main struts inserted in the spire, but has been responsible for much damage in the past."

A further point of interest, to which the architect calls attention, is the excessive condensation that appears to go on day by day in the steeple: the air, being heated up so much by day, condenses rapidly by night, and so causes oxidation of its ironwork. Under leaden flat roofs condensation is a recognised trouble, but is, of course, far worse in the case of the spire. To counteract this in some measure, it is the intention to improve the ventilation at the top.

The foregoing notes, relating to the steeple's more recent history, and the architect's report of its present decayed condition, with the photographic illustrations now issued, furnish practically most of what is known, with any certainty, concerning the Crooked Spire of Chesterfield.

Spires of similar materials—timber covered with a leaden casing—exhibit a variety of designs, which are chiefly marked by the method in which they are joined to the tower they crown. Probably the most pleasing one is that at Long Sutton, where pinnacles are found in combination with a broached base. Godalming spire is a broached one, and, like Chesterfield, has a slight twist, but its apex is a mere 2 feet out of plumb. Barnstaple, too, possesses a very beautiful example of broached type, whose leaden cover is applied in herring-bone fashion, as at Chesterfield, but whose sides overhang the tower walls.

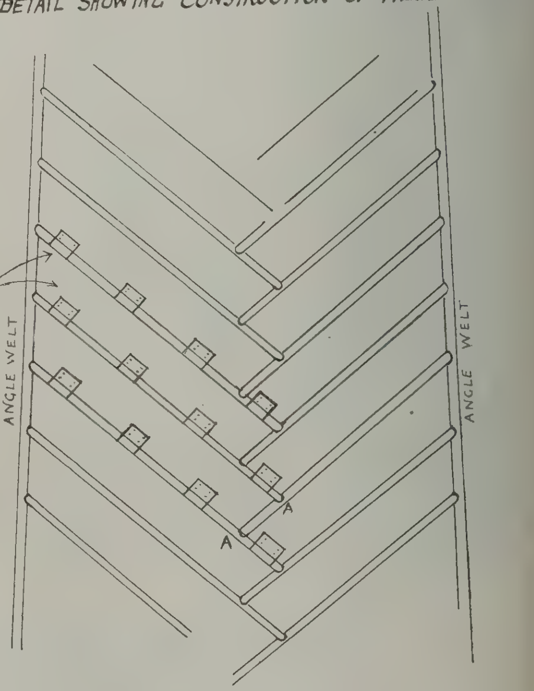
Unlike those named, the lofty and graceful spire of Hemel Hempstead is broached, and has parapets. Some 12 feet from its apex is a covered opening, similar to the one at Chesterfield called the "Crow-hole," which latter is found useful when repairing and facilitates working the "cradle." Of the straight-sided type is Chesterfield spire, rising well within the stone parapet and towers, having an ample pathway all round. Finest of this kind was that of old St. Paul's, which rose majestically to the height of 520 feet; destroyed by lightning and fire in 1561.

Queries regarding the age of Chesterfield spire are constantly asked. Although all records relating thereto have disappeared, there is no great difficulty in approximating its age—*circa* 1375–1400—for it exhibits characteristics which place its erection about the end of the fourteenth century, at the close of the "Decorated" period of mediæval architecture.

The lowest stage of the tower was built early in that century on to the E.E. transepts, and some seventeen craftsmen appear to have been employed in the work; but before the middle and upper stages were completed there is evidence of a stoppage in construction and a later resumption by other masons, who were fewer in number. Doubtless the Black Death, A.D. 1349–50, would cause such a cessation, coming as it did between the commencement and completion of the fourteenth-century reconstruction.

In discussing the cause of its deflection and distortion we are on most debatable ground, for many theories have been advanced (vehemently and heatedly might be added!), and none of them altogether convincing. Several quaint local traditions actually ascribe the blame to the powers of evil.

DETAIL SHOWING CONSTRUCTION OF WELTED JOINTS.



HALF INCH SCALE ELEVATION OF ONE SIDE OF OCTAGON.
SHOWING FIXING OF LEADWORK AND TACKS.
Note—The Water is directed to centre of bay and away from Angle hips It trickles over the Junction of Welts at A.A

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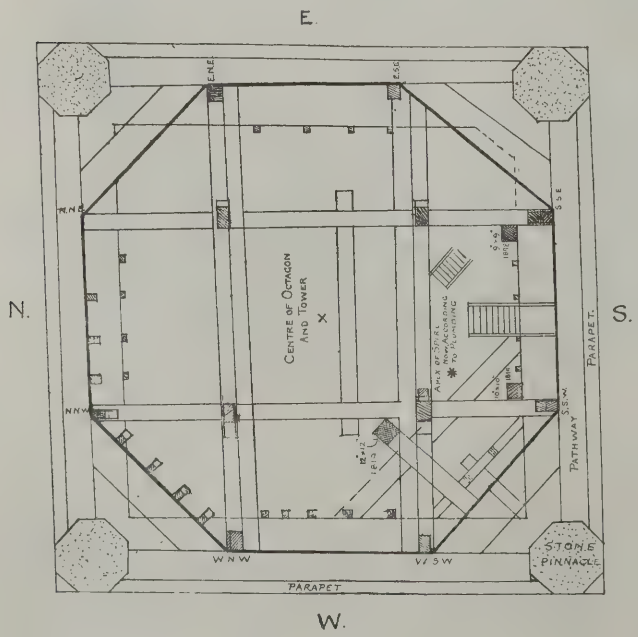
LOOKING UP CENTRE OF CHESTERFIELD SPIRE.
Photo by C. H. Nadin, Chesterfield.

The intention, however, is not to relate or offer criticism on these old tales, or on the numberless opinions which have been expressed, for space would not allow of it; and the purpose of these few notes is to state what is known as fact, leaving deductions to individual fancies. With this view, the following list of some of its peculiarities may perhaps enable a satisfactory solution to be evolved.

1. Based on four massive beams, placed across and parallel to the sides, the whole structure of the spire is fixed into the walls at the top of the tower. These great baulks are joined crosswise in the shape of an Oxford frame, and so forming nine squares, they converge inwardly, giving the taper to the great uprights, affixed at each angle of the central square, which form the core of the framework. These four main converging stanchions are continued the whole height with horizontal framing in diminishing stages, the lowest being about 19½ feet high, and the uppermost at the "Crow-hole" some 7 feet; the horizontal members extend to the point of the octagon supporting the angle-hips and purlins of the roofing.

2. The tower is not perfectly rectangular, but shows "orientation" to the N.E.—that is, the opposite direction from the spire's inclination. This deviation is most marked at the junction of the early fourteenth-century rebuilding with the Early English wall, east of the north transept. The angle there formed is considerably greater than a right angle—in fact, some 10 degrees wider.



3. The spire leans bodily over to the south. Its upper two-thirds being very nearly plumb on the south face, the north side thus forms a greater angle as it leans over towards south. On its south-west side, about half-way up, its line of contour curves inward, quickly followed by a bend outwards (to south-west) where it overhangs. This seems to suggest considerable warping in that direction, resulting from the sun's action. Though absent in its base, warping is most apparent higher up, where the torsion is very great, and some of the internal joints displaced and racked apart by its agency. The kink at south-south-west is receiving especial attention in repairing, for at that point there is a distinct break in the vertical line of the rafters, due to erratic construction or the direct result of warping.

4. Its twist is most pronounced at the base, where it commences. This cannot be due to the sun, for the twist goes anti-sunwise—west to east. The aim appears to have been to construct with a slight twist at the base, which should be so modified in ascending that the upper portion should finish quite upright. (Such an example may be found in the earlier, and stone-built, "Corkscrew Spire of Puiseaux.")

5. While octagonal on plan, viewed from ground level it appears a sixteen-sided figure. This illusion is caused by the method used in fixing the lead chevronwise, or "herringbone," thus making the sides appear channelled, which they are not in reality.

6. The panels, or sides, are unequal in size, as well as the sides and angles of the tower; such inequalities are additional factors in the general distortion.

7. Plumbed on several occasions, the following figures have been recorded:—

Deviation from perpendicular—

January, 1818, to south, 6 feet; to west, 4 feet 4 inches (Rev. G. Hall).

1842, to south, 6 feet 6 inches; to west, 2 feet 6 inches (Mr. Gilbert Scott).

1922, to south, 7 feet 6 inches (7 feet 10 inches to south-west); to west, 3 feet 2 inches.

It is highly probable that the abnormal heat experienced during the summer of 1921 had a considerable effect on the framework. It had been customary for the wardens to estimate some £50 annually to be applied in repairs. Owing to restrictions, during the war nothing could be done, and the exceptional heat came at the moment it was least able to withstand it.

Some of the external leadwork on removal was found to have lost about two-thirds of its original weight from oxidation. It must be remembered the spire is seldom quite still—expansion by day, contraction by night, and ever rocked by the winds, there is no wonder it requires constant attention.

In response to the appeal which has been issued for help in the work of restoration, over £1,000 has now been subscribed, nearly all of it by Chesterfield people and those associated with the town. So far, however, very little response has been made from outside, which is disappointing; for the old crooked spire is more than a local institution, being known the world over as one of the most remarkable monuments of mediæval England.

Messrs. William Moss & Sons, Ltd., of Oakley House, Bloomsbury Street, W.C., and also of Loughborough and Liverpool, have been awarded the contract for the construction of sewage disposal works for the Reading Town Council at a cost of £39,383 13s. 3d. The tenders ranged between £37,172 (afterwards withdrawn) and £68,019.

The winter exhibition at the Grosvenor Galleries will be closed after Saturday, January 13, and early in February there will be opened the following exhibitions: Landscapes by Sir John Lavery, R.A.; still life and other pictures, by E. Q. Henriques; London and other landscapes, by H. J. Gunn; portrait drawings and landscapes, by William Rothenstein.

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A Housing Programme

The National Federation of House Builders have issued a manifesto, which we give elsewhere, in which they lay down and define a programme which might be advantageously adopted, since it is practicable and makes no demands on the public purse.

The first clause in the programme is that "All legislation which unduly penalises the owners of house property should be withdrawn at the earliest possible date." As is stated, the withdrawal of the Rents Restriction Act would not lead to unduly high rents, for the resumption of buying by the public would promote building activity and free competition and would restore the economic position of rents and costs.

The second clause, that "Every endeavour should be made to encourage the people to invest their savings in house property," is a natural corollary of the first; for if house property is to be a good investment, it must be clearly understood that the State will abstain from such action as they have taken during recent years, which has radically disturbed and depreciated values. As is pointed out in the manifesto, when investors buy houses they can be built in large numbers; the builder will make a quick turnover and content himself with small profits.

The third clause states that "All Local Authorities which build houses in the future should be required to charge economic rents except where the houses are erected for the clearing of congested areas." As we have frequently said, private individuals who have to balance their expenditure with income are not in a position to compete with local authorities, who can make good deficits out of the rates.

The fourth clause is quite sound: "If any State assistance is granted for housing, it should be granted equally to municipalities and to private enterprise." The manifesto goes on to state that some form of assistance is absolutely necessary if houses are to be built for the working classes, and the considered opinion of the Federation is that such assistance should take the form of a cash subsidy to those who provide housing of an approved type. We doubt whether this is quite sound, and whether the object aimed at cannot be better achieved in another manner. We doubt the efficacy of a small subsidy, and a large one is out of the question for financial reasons. The alternative method suggested for some districts, the exemption of new houses from local rates for a term of years, might, we think, be advantageously applied to all districts. The provision of adequate housing would relieve local expenses in many ways and improve public health, and local revenue would not be prejudicially affected, since without such relief houses will in all probability not be built at all. It is suggested that the inevitable expense of cleansing and lighting might be covered by a grant from the State equal to the amount of property tax received from the new houses, which would involve no additional expense to the national exchequer. This, too, is sound. The fifth clause advises that "Every method of encouraging citizens to buy their own houses should be adopted if it promises to increase the available housing accommodation." To promote this useful object the further revision of the Small Dwellings Acquisition Act of 1899 as amended in 1919, the extension of assistance to building societies, who should be enabled to lend a larger proportion of the cost than at present, and the exemption of housing from rating for a number of years are advised.

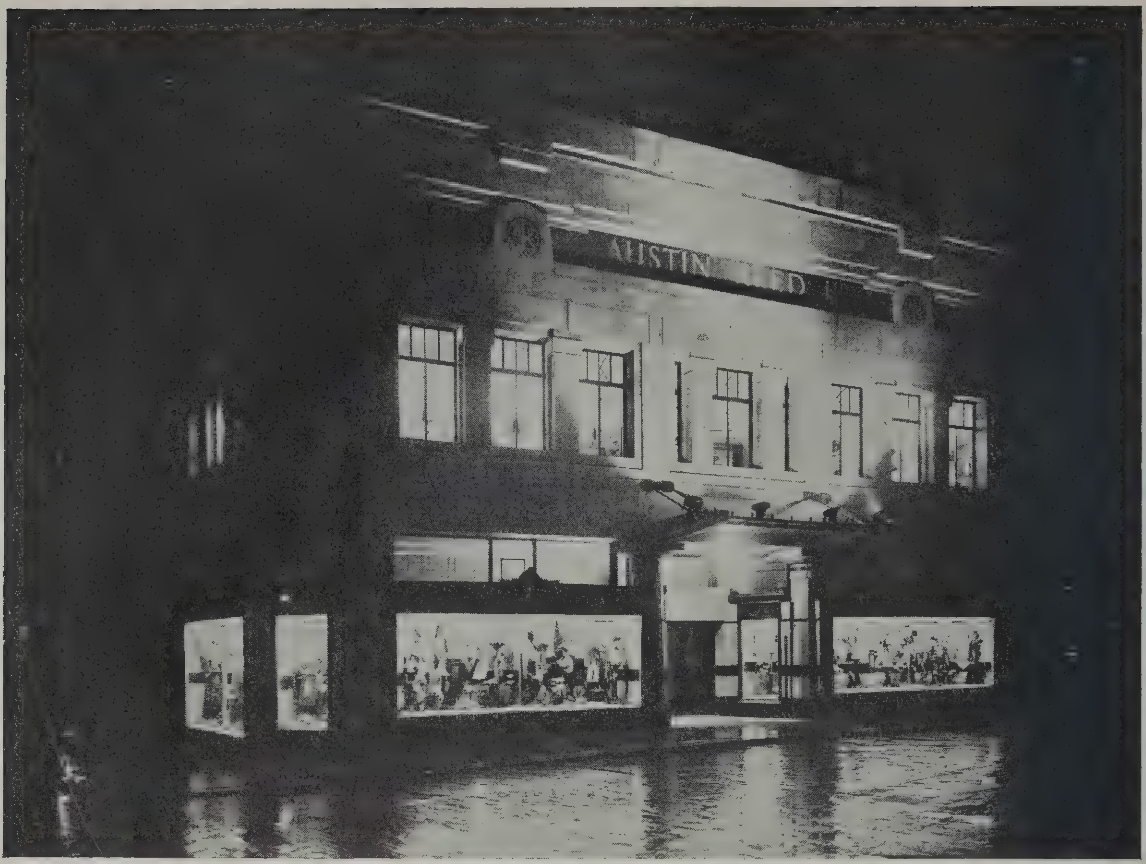
The sixth clause recommends that local authorities should revise their bye-laws both with regard to buildings and road-making, in order to cheapen construction. We are not of opinion that the ordinary building regulations could with advantage be much relaxed, but the clause which lays down the ratio of ceiling to floor spaces in upper rooms might be remodelled with advantage. With regard to the width and construction of roads, considerable amendments might with advantage be made.

Clause seven states the "Local Authorities should be empowered to lend money on mortgage to responsible builders for the development of estates and the erection of houses." This is entirely reasonable, and should be productive of good results.

The last clause states that "Prompt and effective action should be taken by the Government to counteract the operations of trusts and combines in building materials." This would be good if possible, but, knowing what we do of the difficulty met by legislators who attempt to deal with complicated commercial problems, we may perhaps question whether the remedy might not be worse than the disease. The Merchandise Marks Act, the Safeguarding of Key Industries Act, and a long series of similar measures tend to confirm us in the opinion that such problems are possibly better left alone.

Short-sighted and selfish individualism is frequently sufficient to wreck good causes, and there can be no doubt that those who advocated a system of tariffs to protect our national industries, the simplest and most direct measure of national protection, have been greatly handicapped by the action of war profiteers, who, finding circumstances gave them the equivalent of protection, at once proceeded to abuse the advantages they obtained thereby.

With the exception of the Federation's advocacy of a subsidy and their suggestion that good can come from revision of bye-laws, the programme drawn up by them is sound and reasonable. All that can be done without pledging the national exchequer should be done, and that promptly, for the urgency is great. If it is possible to do evil that good may come, the action of the late Government in relation to housing may be justified; for the immediate past has shown the quick retribution which follows the action of those who attempt to tamper with economic laws, the expense of so doing, and the difficulty of getting back to a normal and reasonable standpoint. The key of the whole position is that the most fatal thing a Government can do is to destroy the sense of security of private citizens owning land and buildings.



PREMISES FOR AUSTIN REED, LTD., LEEDS. PHOTOGRAPH TAKEN BY FLOOD LIGHT.
MESSRS. P. J. WESTWOOD & EMBERTON, Architects.

New Premises, Leeds, for Messrs. Austin Reed, Ltd.

This store has been erected for the well-known hosiers at the corner of Bond Street and Albion Street, with a total frontage of about 70 feet, in one of the best business centres in the city, long in want of improvement. Three old shop premises were demolished and some 9 feet at the angle purchased by the Corporation for widening, giving a straight line to the new Bond Street frontage.

The entrance lobby has been placed in the centre of the Bond Street front, with stairs and lift immediately opposite, making different departments right and left upon each floor.

The upper floor has no windows, but has a continuous roof and lay light, enabling large clothing cabinets to be placed against the walls with a clear centre floor space.

The fronts are faced with Portland stone ; Roman and black Belgian marble facings around the show-windows and the columns ; stallboard and floor and ceiling to the large lobby.

The shop fronts and entrance doors are of bronze.

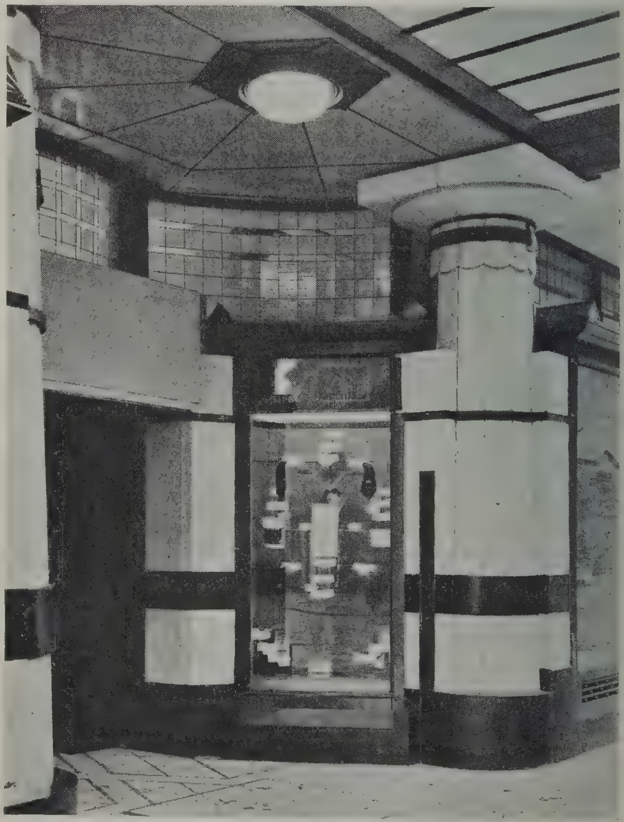
Advantage has been taken of the upper floor to place the name of the firm in a recessed panel of gold colour Italian mosaic with white lettering, this name being lighted at night by reflectors placed above the projecting canopy.

The staircase and the whole of the fittings throughout are in selected oak clear polished, and the ceilings and friezes finished in duck-egg blue distemper.

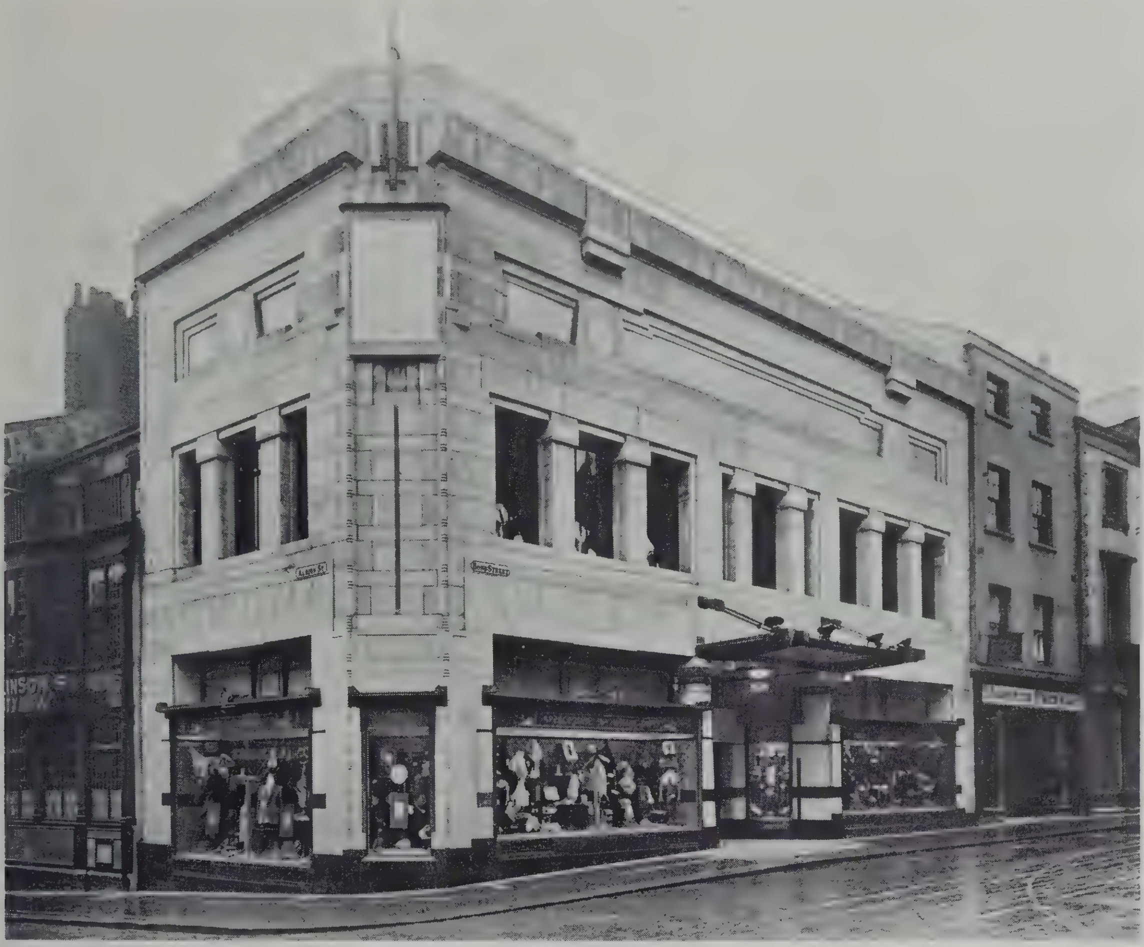
The entire fittings and furniture throughout have been carried out from the architect's own designs, and we understand the proprietors are greatly pleased with the results, both in design and workmanship.

The architects and quantity surveyors supervising the erection were Messrs. Kitson, Parish & Ledgard, of Leeds; the architects responsible for the designs throughout being Messrs. P. J. Westwood & Emberton, AA.R.I.B.A., 7 Adam Street, Adelphi, London, W.C.2.

Commercial men have, during the past few years, become more and more awake to the commercial value of architecture. They realise that it is not alone sufficient to make an impression on the public by the quality of their goods, but that the building in which their business is transacted must likewise impress their clients.



DETAIL OF MAIN ENTRANCE.
MESSRS. P. J. WESTWOOD & EMBERTON, Architects.



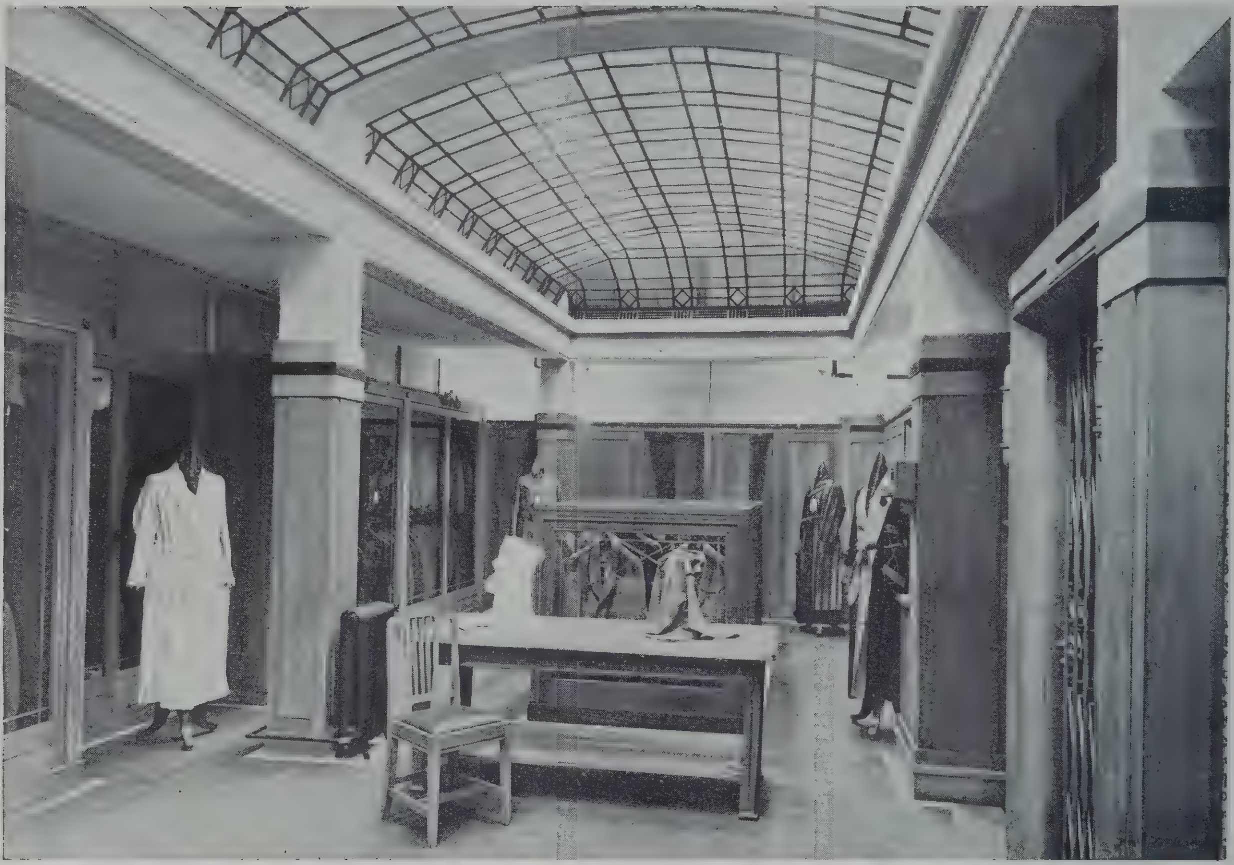
EXTERIOR VIEW.

PHOTOS : SYDNEY NEWBERY

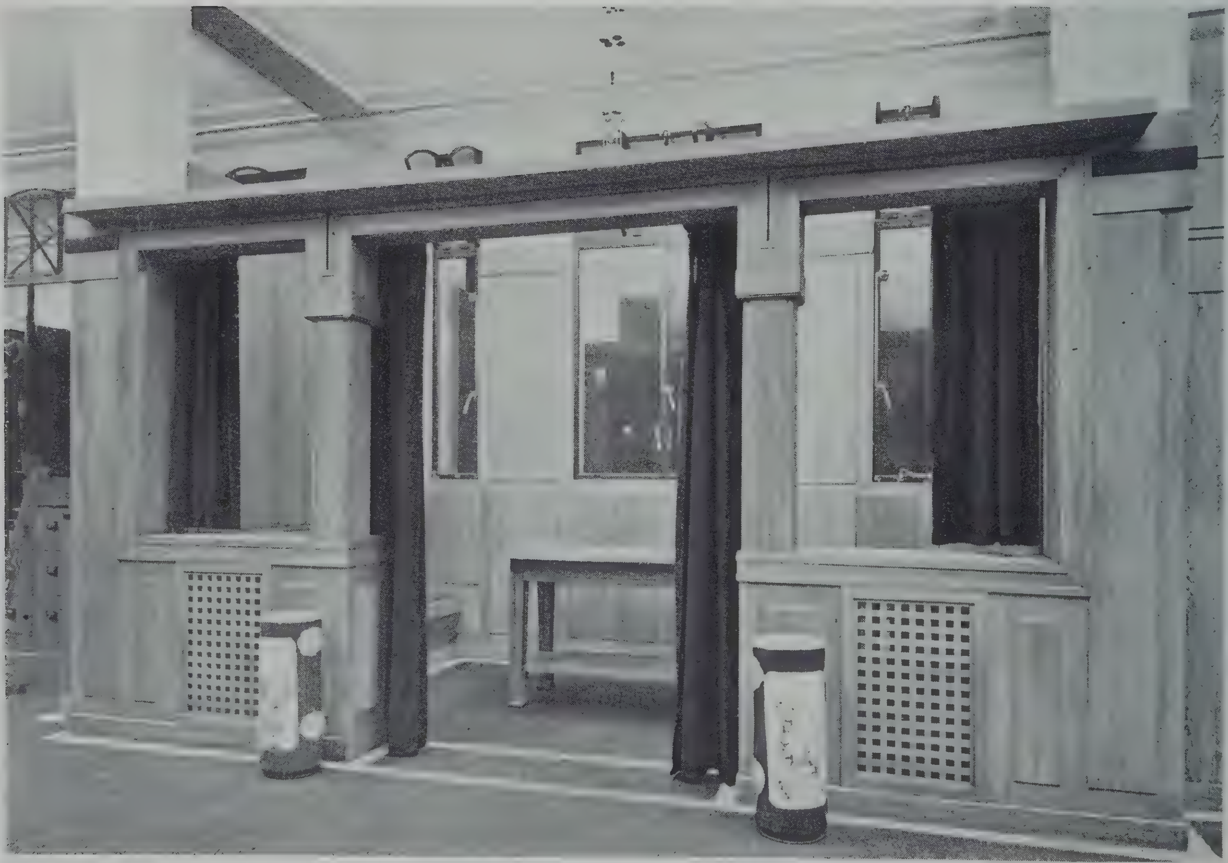
GROUND FLOOR WITH NECKWEAR AND GLOVE SECTION IN THE DISTANCE.

NEW PREMISES, LEEDS, FOR MESSRS. AUSTIN REED, LTD.

P. J. WESTWOOD & EMBERTON, Architects.



SECOND FLOOR, CLOTHING DEPARTMENT.

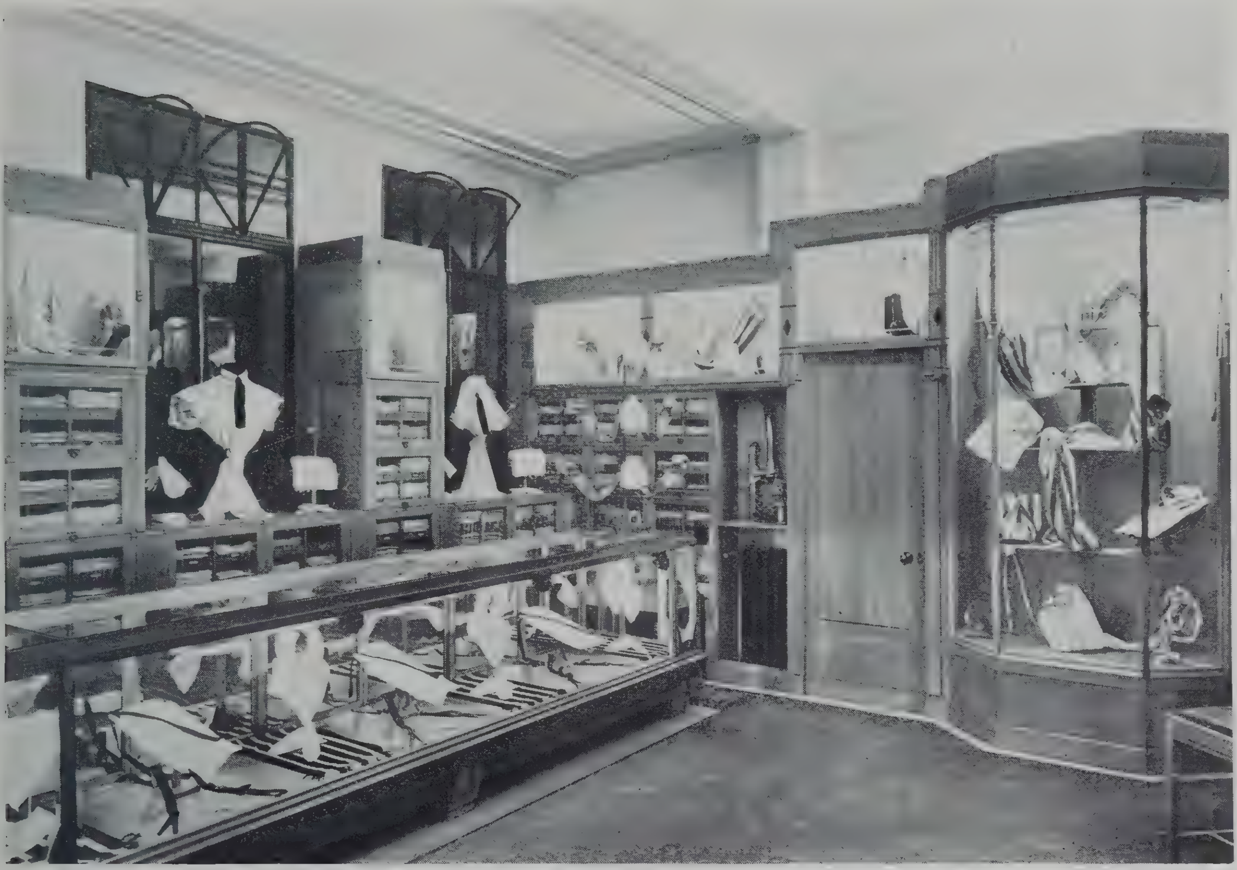


PHOTOS: SYDNEY NEWBERY

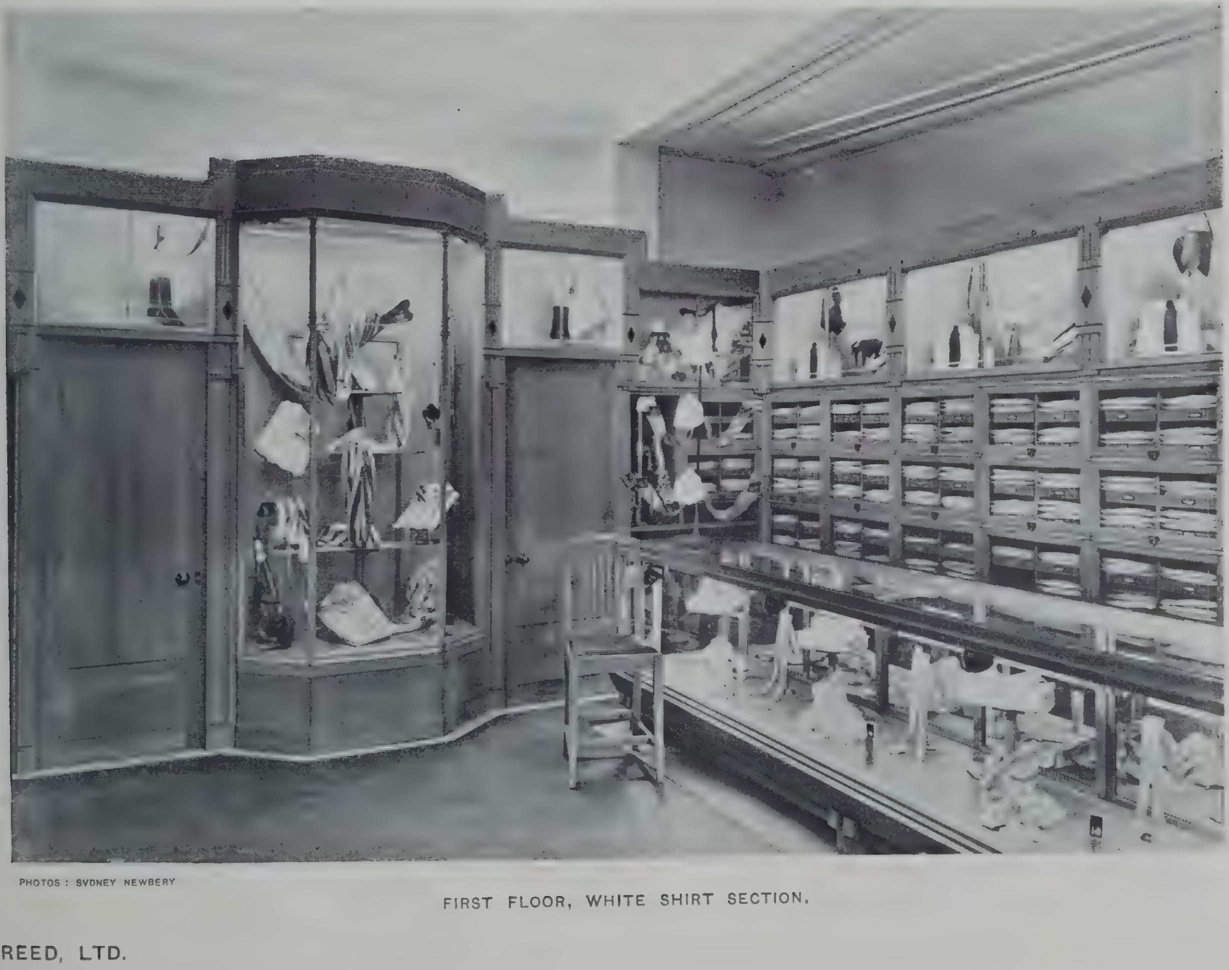
FIRST FLOOR WAITING ROOM.

NEW PREMISES,

P. J. W



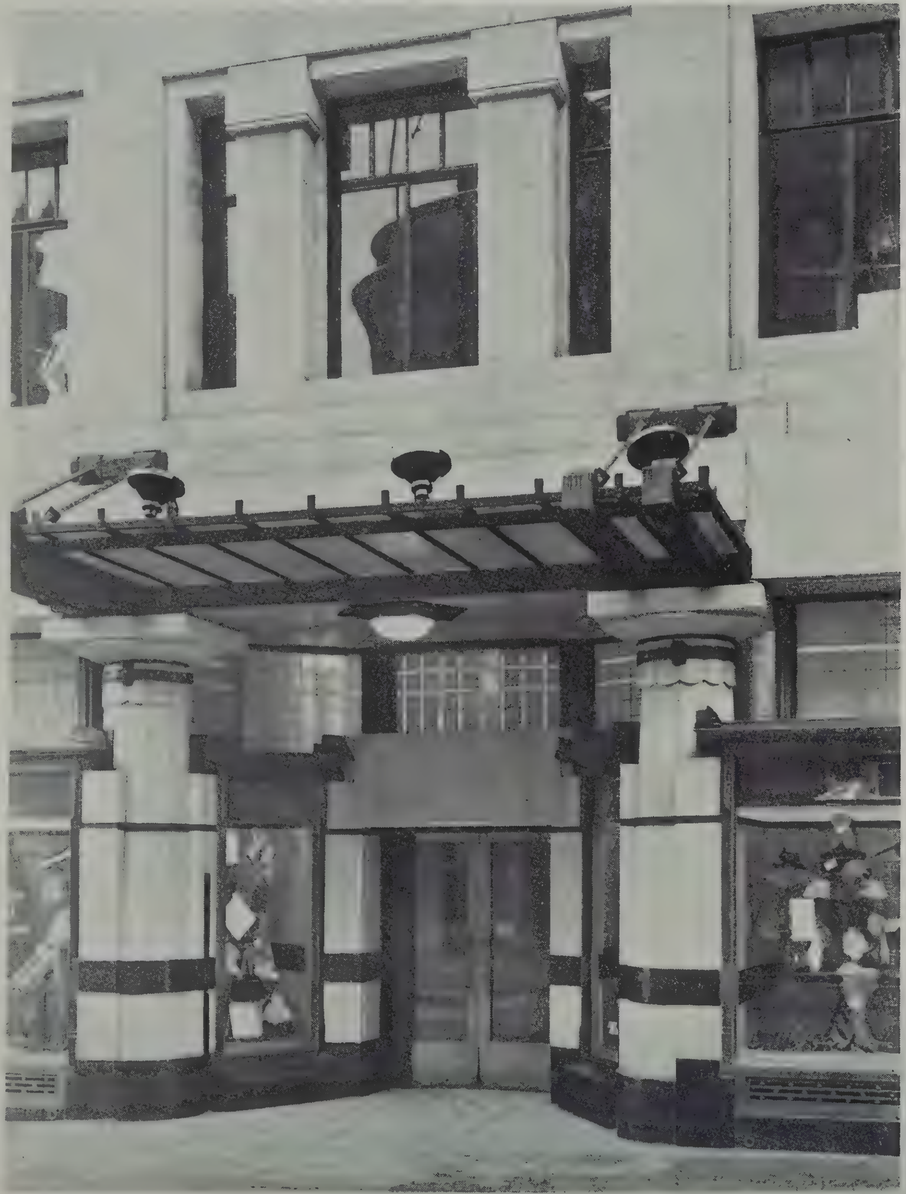
FIRST FLOOR, COLOURED SHIRT SECTION.



PHOTOS : SYDNEY NEWBERY

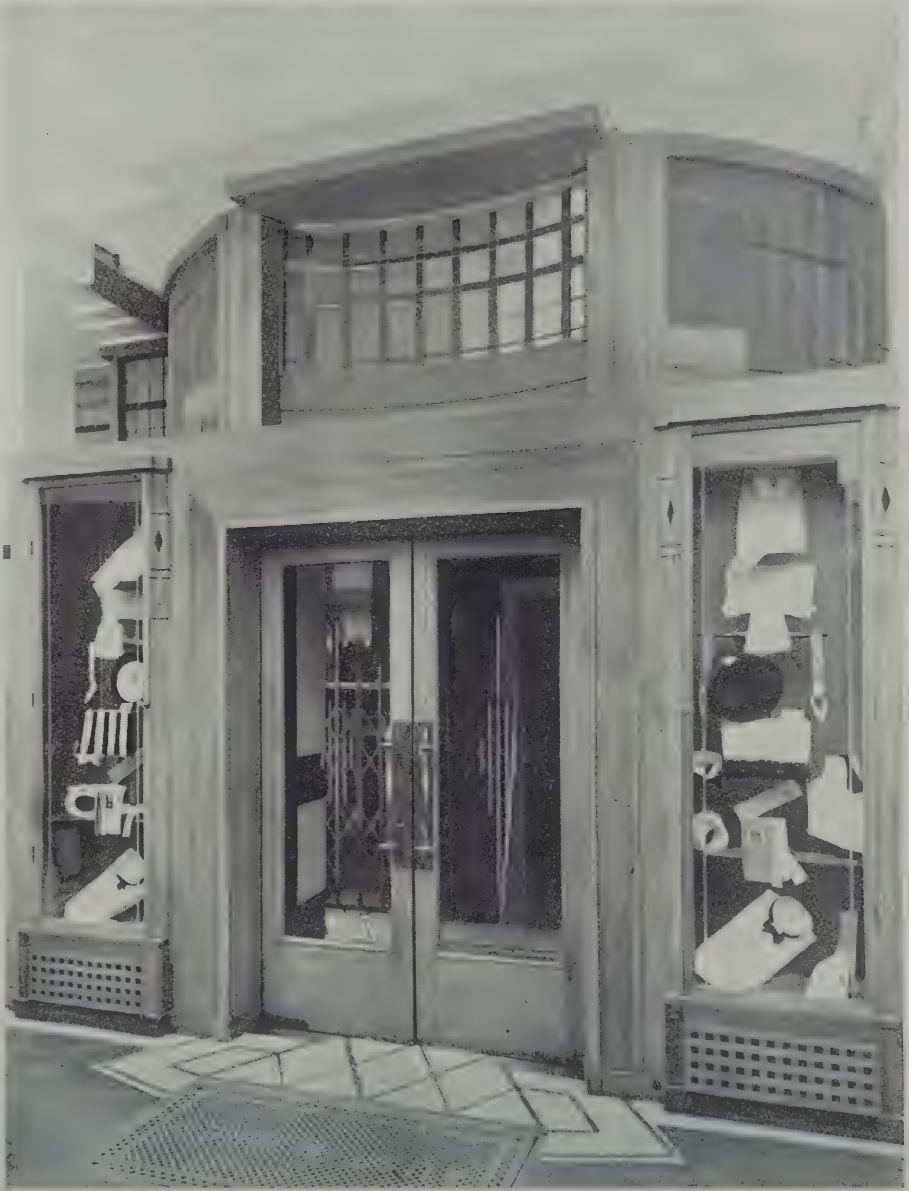
FIRST FLOOR, WHITE SHIRT SECTION.

S.AUSTIN REED, LTD.
RCHITECTS.



PHOTOS: SYDNEY NEWBERY

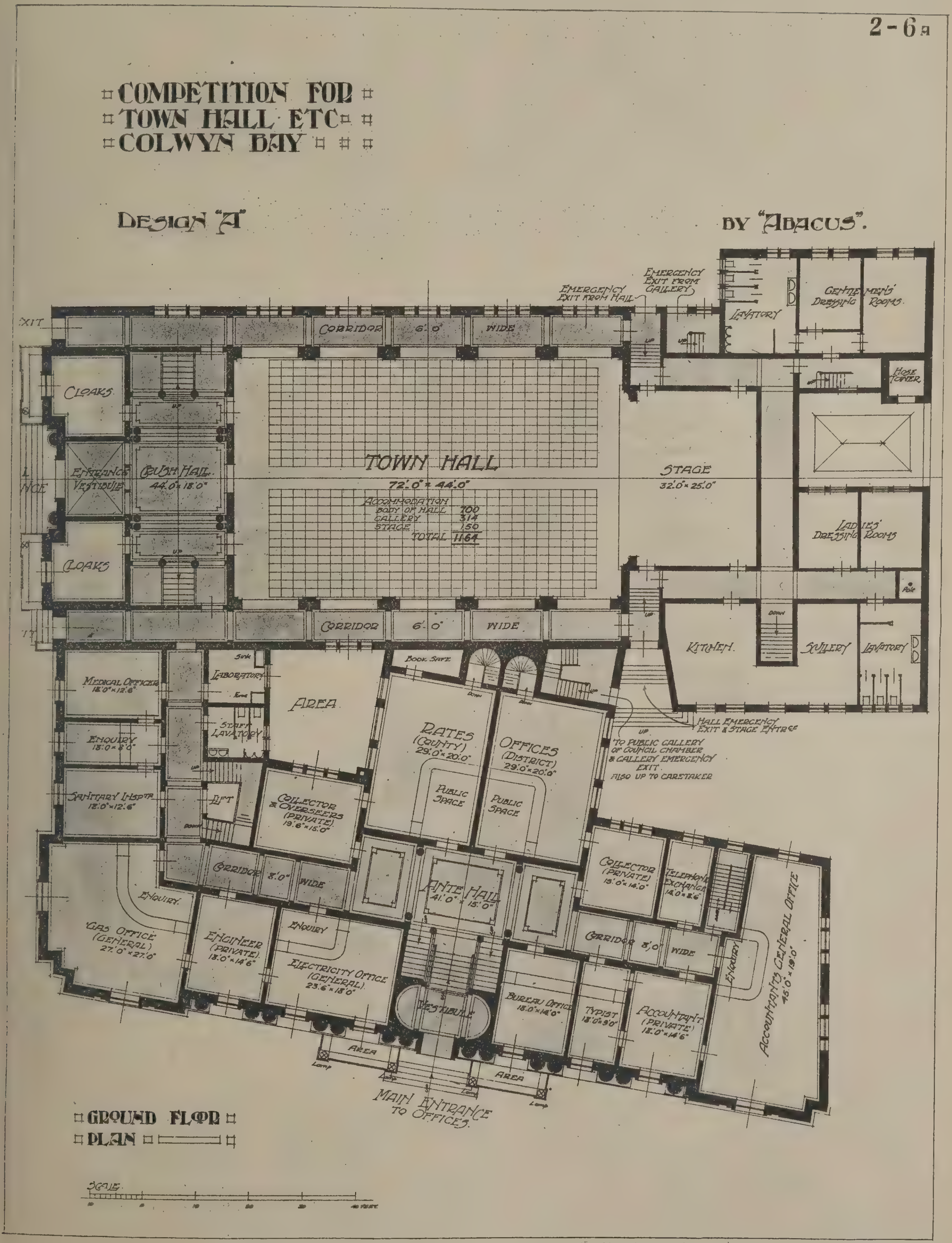
EXTERIOR VIEW OF MAIN ENTRANCE.



INTERIOR VIEW OF MAIN ENTRANCE.

NEW PREMISES, LEEDS, FOR MESSRS. AUSTIN REED, LTD.

B. J. WESTWOOD & EMBERTON, ARCHITECTS.


2-6a
COMPETITION FOR
TOWN HALL ETC
COLWYN BAY
DESIGN "A"
BY "ABACUS".
EMERGENCY EXIT FROM GALLERY
EMERGENCY EXIT FROM HALL
LAVATORY
GENTLEMEN'S DRESSING ROOMS
HOSE TOWER
EXIT
CORRIDOR 6'0" WIDE
CLOAKS
ENTRANCE VESTIBULE
CRUSH HALL 44'0" × 18'0"
TOWN HALL 72'0" × 44'0"
ACCOMMODATION
BODY OF HALL 700
GALLERY 314
STAGE 150
TOTAL 1164
STAGE 32'0" × 25'0"
LADIES' DRESSING ROOMS
POLE
KITCHEN
SCULLERY
LAVATORY
MEDICAL OFFICER 18'0" × 12'6"
ENQUIRY 18'0" × 8'0"
SANITARY INSPTR 18'0" × 12'6"
LABORATORY
STAFF LAVATORY
LIFT
AREA
BOOK SAFE
RATES (COUNTY) 29'0" × 20'0"
OFFICES (DISTRICT) 29'0" × 20'0"
PUBLIC SPACE
PUBLIC SPACE
HALL EMERGENCY EXIT & STAGE ENTRCE
TO PUBLIC GALLERY OF COUNCIL CHAMBER & GALLERY EMERGENCY EXIT. ALSO UP TO CARETAKER
COLLECTOR & OVERSEERS (PRIVATE) 19'6" × 15'0"
CORRIDOR 8'0" WIDE
ANTE HALL 41'0" × 15'0"
COLLECTOR (PRIVATE) 15'0" × 14'0"
TELEPHONE EXCHANGE 12'0" × 8'6"
CORRIDOR 8'0" WIDE
ENQUIRY
ACCOUNTANT'S GENERAL OFFICE 45'0" × 19'0"
GAS OFFICE (GENERAL) 27'0" × 27'0"
ENQUIRY
ENGINEER (PRIVATE) 18'0" × 14'6"
ENQUIRY
ELECTRICITY OFFICE (GENERAL) 23'6" × 18'0"
VESTIBULE
BUREAU OFFICE 18'0" × 14'0"
TYPIST 18'0" × 9'0"
ACCOUNTANT (PRIVATE) 18'0" × 14'6"
AREA
AREA
LAMP
MAIN ENTRANCE TO OFFICES
GROUND FLOOR PLAN
SCALE
10 0 10 20 30 40 FEET

INK-PHOTO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

COMPETITION FOR TOWN HALL, ETC., COLWYN BAY. FIRST PREMIATED DESIGN.

BY MESSRS. J. M. PORTER & CO., ARCHITECTS.

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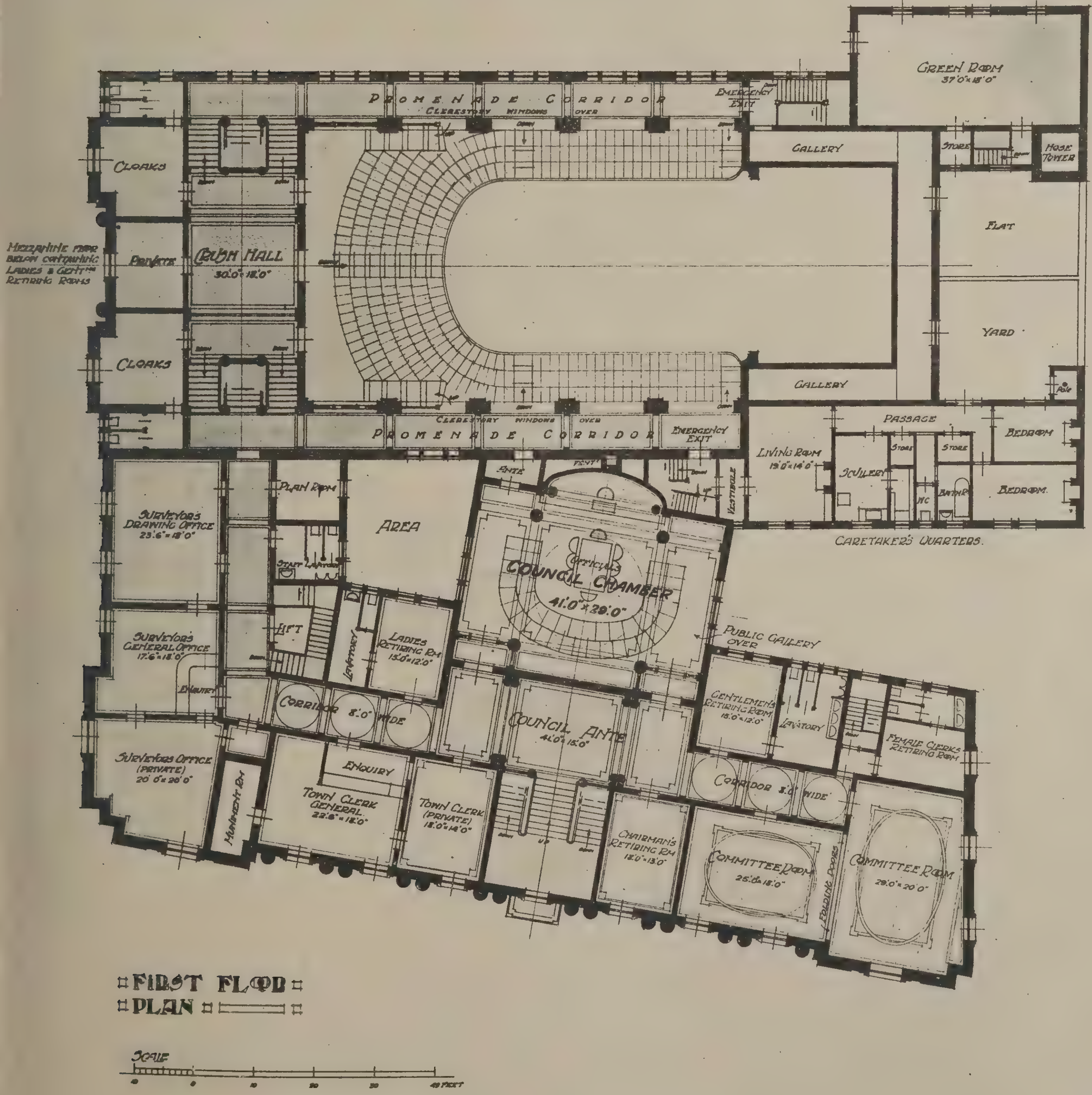
THE ARCHITECT, JANUARY 19th, 1923.

3-6a

COMPETITION FOR TOWN HALL ETC COLWYN BAY

DESIGN "A" BY "ABACUS".


PROMENADE CORRIDOR
CLERESTORY WINDOWS OVER
EMERGENCY EXIT
GREEN ROOM 37'0" × 18'0"
GALLERY
STORE
HOSE TOWER
FLAT
YARD
CLOAKS
PRIVATE
CRUSH HALL 30'0" × 18'0"
MEZZANINE FLOOR BELOW CONTAINING LADIES & GENT'S RETIRING ROOMS
PASSAGE
BEDROOM
LIVING ROOM 19'0" × 14'0"
SCULLERY
STORE
WC
BATH R
VESTIBULE
CARETAKER'S QUARTERS.
SURVEYOR'S DRAWING OFFICE 23'6" × 18'0"
PLAN ROOM
AREA
STAFF LAVATORY
ANTE
VENT
COUNCIL CHAMBER 41'0" × 29'0"
OFFICIALS
LIFT
LAVATORY
LADIES RETIRING RM 15'0" × 12'0"
PUBLIC GALLERY OVER
SURVEYOR'S GENERAL OFFICE 17'6" × 18'0"
ENQUIRY
CORRIDOR 8'0" WIDE
COUNCIL ANTE 41'0" × 15'0"
GENTLEMEN'S RETIRING ROOM 15'0" × 12'0"
LAVATORY
FEMALE CLERKS RETIRING ROOM
SURVEYOR'S OFFICE (PRIVATE) 20'0" × 28'0"
MUNIMENT RM
ENQUIRY
TOWN CLERK GENERAL 22'6" × 18'0"
TOWN CLERK (PRIVATE) 18'0" × 14'0"
UP
CHAIRMAN'S RETIRING RM 18'0" × 13'0"
CORRIDOR 8'0" WIDE
COMMITTEE ROOM 25'6" × 18'0"
FOLDING DOORS
COMMITTEE ROOM 29'0" × 20'0"
SCALE
10 0 10 20 30 40 FEET

FIRST FLOOR PLAN

"INK-PHOTO" SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W. I

COMPETITION FOR TOWN HALL, ETC., COLWYN BAY. FIRST PREMIATED DESIGN.

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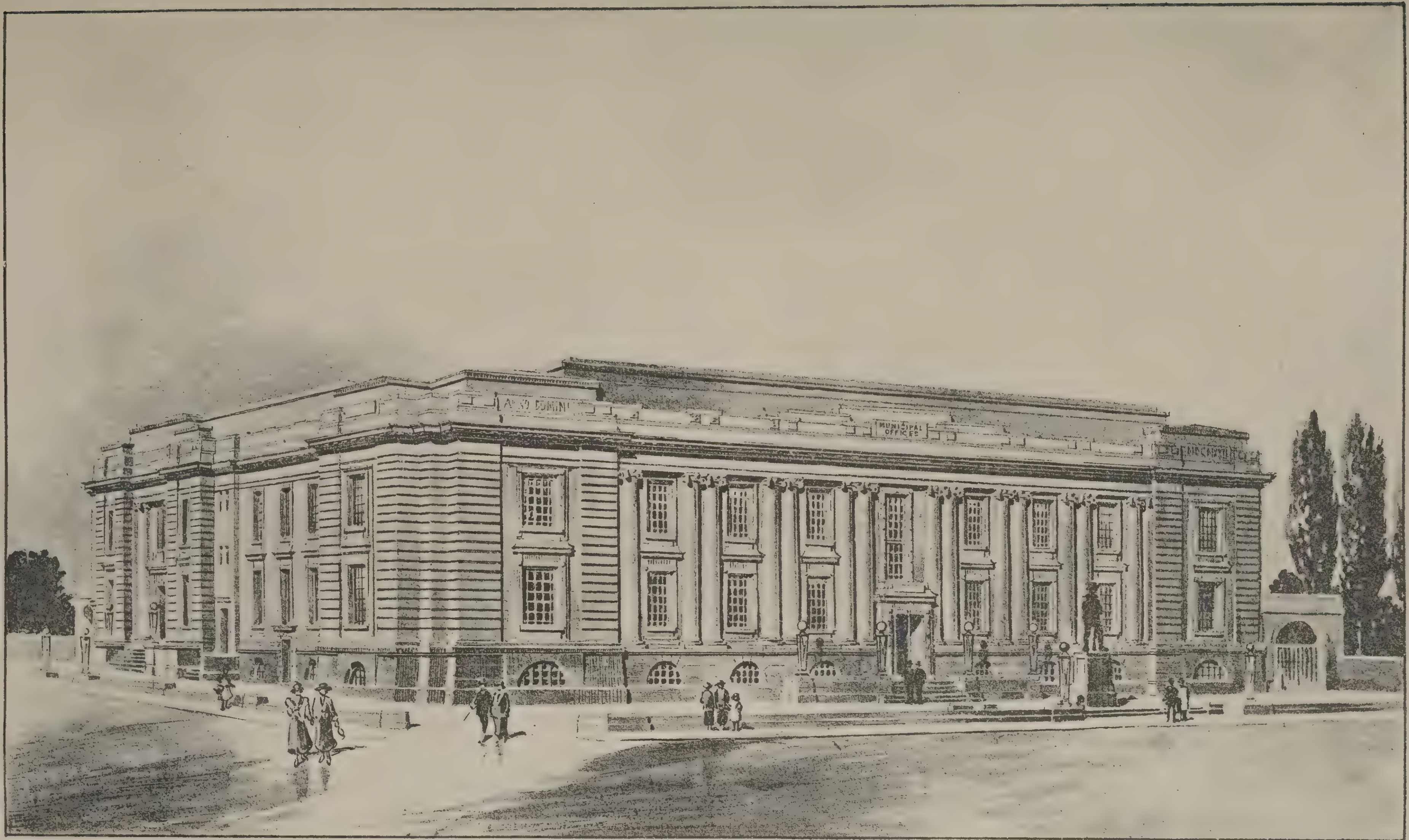

"INK-PHOTO". SPRAGUE-HAYCOCK (PRINTERS) LTD 65 & 70 DEAN STREET, LONDON W 1

COMPETITION FOR TOWN HALL, ETC., COLWYN BAY. FIRST PREMIATED DESIGN.

BY MESSRS. J. M. PORTER & CO., ARCHITECTS.

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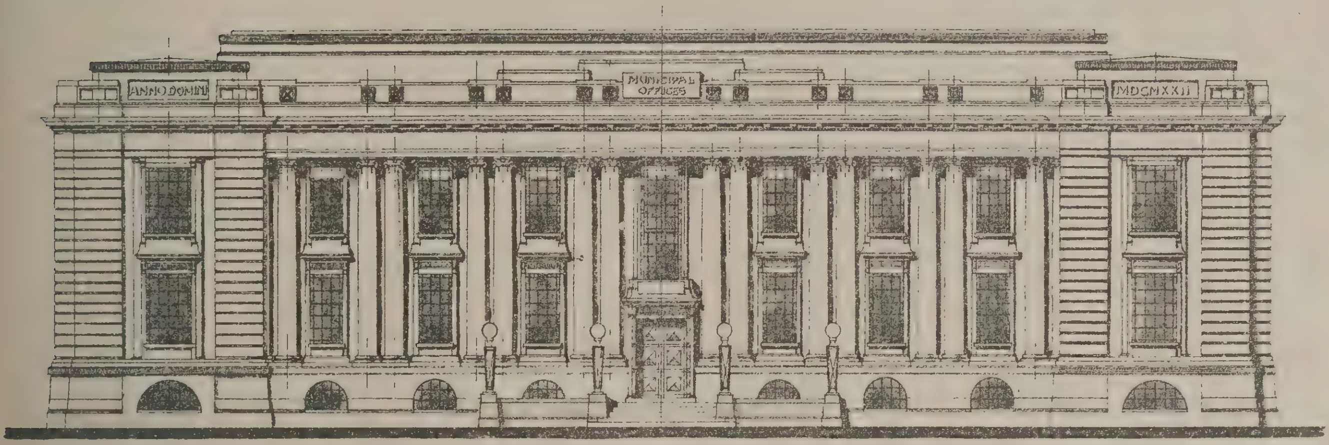
5 - 6a

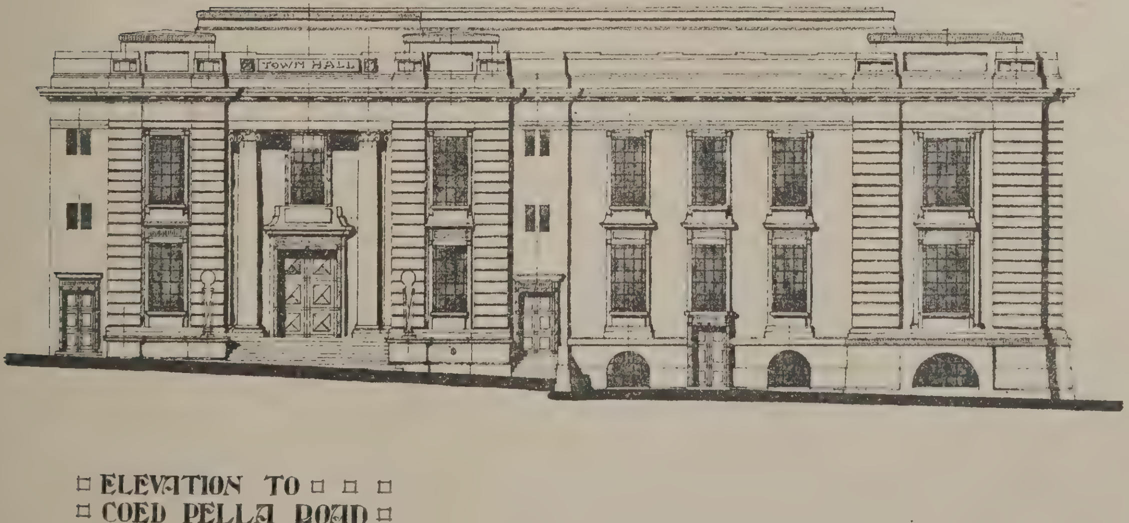
⌑ COMPETITION FOR ⌑
⌑ TOWN HALL . ETC ⌑ ⌑
⌑ COLWYN BAY ⌑ ⌑ ⌑

DESIGN "A"

BY "ABACUS"



⌑ ELEVATION TO ⌑
⌑ CONWAY ROAD ⌑



⌑ ELEVATION TO ⌑ ⌑ ⌑
⌑ COED PELLA ROAD ⌑

"INK-PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

COMPETITION FOR TOWN HALL, ETC., COLWYN BAY. FIRST PREMIATED DESIGN.

BY MESSRS. J. M. PORTER & CO., ARCHITECTS.

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Thus, Messrs. Austin Reed's, Ltd., new store in Bond Street, Leeds, will for some long time impress the townspeople. In character the elevation is entirely different from any other store in the city. Though in a street of considerable importance it stands there as the only building with any pretensions to modern architecture. From a business point of view the store will be self-advertising. Many minor improvements have been carried out by surrounding store owners, but these only tend to emphasise the isolation and dignity of the new building.

On entering one is impressed by the complete lack of confusion ; one assistant standing close to the entrance controls the whole flow of customers. Even during the most crowded hours, and whilst the departments are small, a visitor never has the feeling of inconvenient crowding. This is partly due to the specially designed fittings, which give a maximum display of goods. The piles of boxes on counters so often seen in shops, and which is brought about by the search after the required articles, never occurs. Handling of goods is reduced to a minimum, thus saving valuable time to both salesman and clients.

One of the remarkable features of Austin Reed's new building is the lighting installation, which represents a complete breakaway from the conventional methods. The architects designed the lighting scheme when they designed the building, and the two sets of plans are complementary and interdependent. Although the general methods might be applicable elsewhere, the treatment and equipment would need to be considerably modified. In the indirect system of lighting in main showrooms the light is thrown upwards by reflectors in the tops of specially designed wood pedestals about 7 feet 6 inches high, each fitted with three X-ray reflectors and three Mazda gas-filled lamps, standing in the middle of the floor—instead of the usual reflectors suspended from the ceiling or by cornice units. These main units are supplemented by X-ray reflectors concealed in the tops of shelves and similar fixtures, which were constructed with that end in view. From the architectural and decorative point of view the advantage of keeping the ceiling clear of suspended fittings in a room of this kind is obvious. In the ready-made clothing department the light sources are not merely invisible but are entirely external to the room. This department is on the top floor and has a frosted glass roof, which provides natural lighting during the day. Above this glass roof are fixed a number of X-ray reflectors, containing high-powered Mazda gas-filled lamps, and the light from the lamps is reflected downward through the glass.

The showcases at Austin Reed's are lighted by means of X-ray "Scoopette" reflector units containing Mazda Navy bulb lamps, fixed along the top front edge of the showcase. The light is thrown down and back on to the display, and the lamps are concealed by the opaque reflectors. This system of lighting is entirely successful, and is a great deal more efficient than the tubular lamp method. Lamp replacements are less frequently necessary in the former system and are also less expensive.

The windows are lighted in the same way as the showcases, but with larger reflectors and lamps. The X-ray units are fixed along the top front edge of the window and are concealed by a narrow curtain. No outside lights are used, and the interior lights are invisible to people on the pavement. One of our text illustrations shows the uniform, brilliant illumination concentrated on the display. The same picture also shows how the name at the top of the building is lighted. Four B. T.-H. floodlight projectors, equipped with Mazda gas-filled lamps, are fixed to the top of the canopy, and the four beams are concentrated upon the words "Austin Reed." With more projectors and a different arrangement it would have been equally easy to light the entire façade, but in this case it was only desired to light the name.

All our photographs of this interesting building were taken by the unaided light of the Mazda lamps installed in the various departments. Moreover, they were all taken with exposures ranging from three to four minutes. The pictures, therefore, do really give a fairly accurate idea of the quality and intensity of the illumination. Were it not for the dark windows in the interior pictures, any one of them, judging from the illumination results, might be mistaken for a daylight photograph. There are no signs of halation in the photographs because there are no visible light sources to cause it.

Above all, the Austin Reed installation does most emphatically illustrate the advantages of co-operation between architect and illuminating engineer in the early stages of design. In this case the architects—Messrs. Westwood and Emberton—discussed the question at the very beginning of operations with the illuminating engineer of The British Thomson-Houston Company, Ltd., of 77, Upper Thames Street, London, E.C.4, and City Square, Leeds. Between them they decided upon the present scheme, which is at once an architectural and an illuminating triumph.

In buildings of this type great flexibility is required of a heating apparatus, owing to the ever varying thermal conditions, and in order to meet these requirements a low pressure hot water central heating system, designed on the thermo-syphonic principle, has been installed, which embodies many special features.

To harmonize with the general design of the internal fittings and panelling, in many positions the radiators are concealed in recesses behind trellised oak grids, and though this treatment necessitates proportionately increased heating surface, the effect is altogether pleasing, as will be appreciated by referring to our illustrations.

A pipe coil has also been fixed hidden above the cornice surrounding the large ceiling light on the second floor, in order to prevent down-draught from this source. The vertical pipes are small in diameter and adroitly fitted behind the stanchions and in other unobtrusive positions.

The whole installation circulates without a motor, pump or other mechanical means, in spite of the small diameter of the mains, and dips in the runs of the mains necessitated through structural difficulties ; and was designed and installed by the Central Heating Co., Ltd., of London, Leeds and Brighton, which firm has just installed a complete central heating plant and hot water services for the whole of the Hotel Cecil, London.

The general contractors were Messrs. William Irvin & Co., Ltd., Burley Road, Leeds. Messrs. The Taylor Manufacturing Co. (1919), Ltd., executed the whole of the bronze work and also supplied the steel casements throughout the building. Messrs. Smith Major & Stevens, Northampton and London, were responsible for the lifts. Door furniture and ironmongery was supplied by Messrs. Yannedis Co., Ltd., and the pavement lights by The Luxfer Prism Co., 16, Hill Street, Finsbury. The shopfittings, which include many original appliances, were manufactured and supplied by Messrs. Harris & Sheldon, Ltd., Birmingham, under personal supervision of the architects. Messrs. The Korkoid Ruboleum Tile Co., Coventry Street, London, supplied the entire floor coverings, and Messrs. G. Cuthbert & Co., Artillery House, 226, Bishopsgate, E.C., the patent glazing transom lights. The lift enclosures were executed by Messrs. Potter Rax Gate Co., Wilton Works, Shepperton Road, N.1.

Winning Design, Colwyn Bay Town Hall

MESSRS. J. M. PORTER & CO., Architects.

The following is a description of the scheme submitted under the nom-de-plume of "Abacus," which has been placed first by the assessor, Mr. F. P. Lockwood, the Chester architect and which is illustrated on our centre plates :

The general layout of these buildings is such that provision has been made for complete Municipal Offices and Town Hall, which could be erected separately.

The Town Hall portion, together with the fire and ambulance stations, might be built first, and the Council could continue in their present premises. Next (if it was found necessary to proceed with the construction of the offices) a part could be arranged to temporarily accommodate certain of the officials while the existing premises were removed and the whole scheme completed.

The Town Hall portion of the scheme has been designed with a view to the local social and public requirements. It will accommodate twelve hundred people seated in the body of the hall and in the balcony on the first floor, but this accommodation could be greatly increased.

The main entrance to the hall is from Coed Pella Road giving access through a vestibule into a foyer. From the latter two large staircases lead up to the crush hall on the balcony floor. Along each side of the hall on both floors is a promenade corridor of ample dimensions giving easy access to the various seats, and also allowing of ample exists being provided communicating direct with the open.

A stage is provided, together with the necessary retiring rooms for principals and chorus, and is sufficiently large to be used for theatrical purposes.

In the event of the hall being used for dances or other public functions, a kitchen and scullery are arranged for.

Included in this portion of the scheme is an ambulance station with store, capable of accommodating two motor ambulances. There is also a fire station large enough to house a complete equipment, and a workroom for repairs is placed at the rear. Over this portion of the block is a caretaker's quarters with separate entrance.

As regards the municipal offices, not only will there be ample room for the existing staff, but provision has been made for probable future expansion, the Urban District being unusually progressive.

The main entrance is in the centre of the building facing Conway Road, and leads, by means of a few steps, to an entrance hall giving direct access to the "Rates" offices, so planned that in the event of large extension in this portion of the work being required they can be thrown into one room. In direct communication with each of these "Rates" offices is a private room for the collectors and overseers.

On each side of the entrance are the main offices for the gas and electricity departments and also for the accountant. Provision is also made for the medical officer of health and sanitary inspector, and to these particular rooms a subsidiary entrance is given from Coed Pella Road, which entrance also gives direct access to the gas and electricity showrooms in the basement.

The Council chamber on the first floor is centrally situated directly opposite the main staircase. Access is given to same from an ante hall by means of two doorways, and provision is made for the accommodation of forty members in addition to officials. The usual retiring rooms for the chairman, members and lady members are provided. A public gallery is planned on one side of the Council chamber, and access to it is by a separate staircase from the outside, over which the caretaker would have special supervision.

Two large committee rooms can be thrown into one room by the removal of a sliding partition.

On this floor is given accommodation for the staff of the town clerk and the surveyor. Means of communication are provided between the Town Hall and the offices through the main corridors on both floors, also from the Council chamber.

Ample provision has been made in the way of various other necessary rooms, such as retiring rooms for the staff, internal telephone call office, and town information bureau. An electric lift in addition to the secondary staircase will serve the three floors of offices.

The basement is given up to storage for the various departments in addition to the showrooms for the gas and electricity departments. A boiler-house is centrally situated, large enough to accommodate the fittings for the complete heating and ventilation of the buildings.

The elevations fronting to Coed Pella and Conway Roads are shown to be carried out in stone, the whole design being based upon the Greek classic style.

Effect is obtained by means of broad masses rather than small detailed work, elaboration in this respect having been carefully avoided, except in the case of the main cornices and entablature.

The scheme shewn has been planned and designed by Messrs. J. M. Porter & Co., architects, Colwyn Bay.

Notes and Comments.

Housing.

Considerable doubt seems to be felt by many as to whether the Government will consider it politic to allow their avowed convictions as to the elimination of State assisted housing to govern their action. Such doubts are expressed in Lord Islington's letter to "The Times." We cannot imagine how anyone can think that the continuance of a policy which stands condemned on its recent trial can possibly be justified. Either private enterprise is to be encouraged or not. If not, it will not enter the field whether State housing is to be carried on on a large or a small scale. If the principle that the State must provide for housing out of its funds be admitted, it matters very little whether ten millions or one hundred millions are expended in this way. If the principle be once admitted everyone knows its application may be extended, and no sane man or man with strictly limited means will enter the field against the State which need not work out a balance of income and expenditure. The relief of housing from rating and the provision of money at the lowest possible rate of interest to those erecting houses in our view constitute the extreme limit of what should be done.

The Value of Colour.

Mr. J. M. Hogge's letter, written from the House of Commons, on Dull Cities and their want of colour does not seem to raise any really novel points. He asks why modern town planners should not make use of a wide variety of colours obtainable in terra-cotta and vitreous brick for external decoration, and says "One can picture the delightful effect of a whole thoroughfare in which the dominating tints would be blue or green or greys or yellows, relieved by white." Tastes differ, but we should be inclined to say such effects would be those of a nightmare. Effective colour, as we can prove, is a matter not of the clear, strong tints given by glazed surfaces, but the varying effects of light and shade on more subtle colours of materials the texture of which is varied. We can, in a word, get more effect out of sand-faced brickwork and stone than from a conglomeration of highly glazed materials, which often have a most disconcerting effect in obscuring forms.

The Building Trade Crisis.

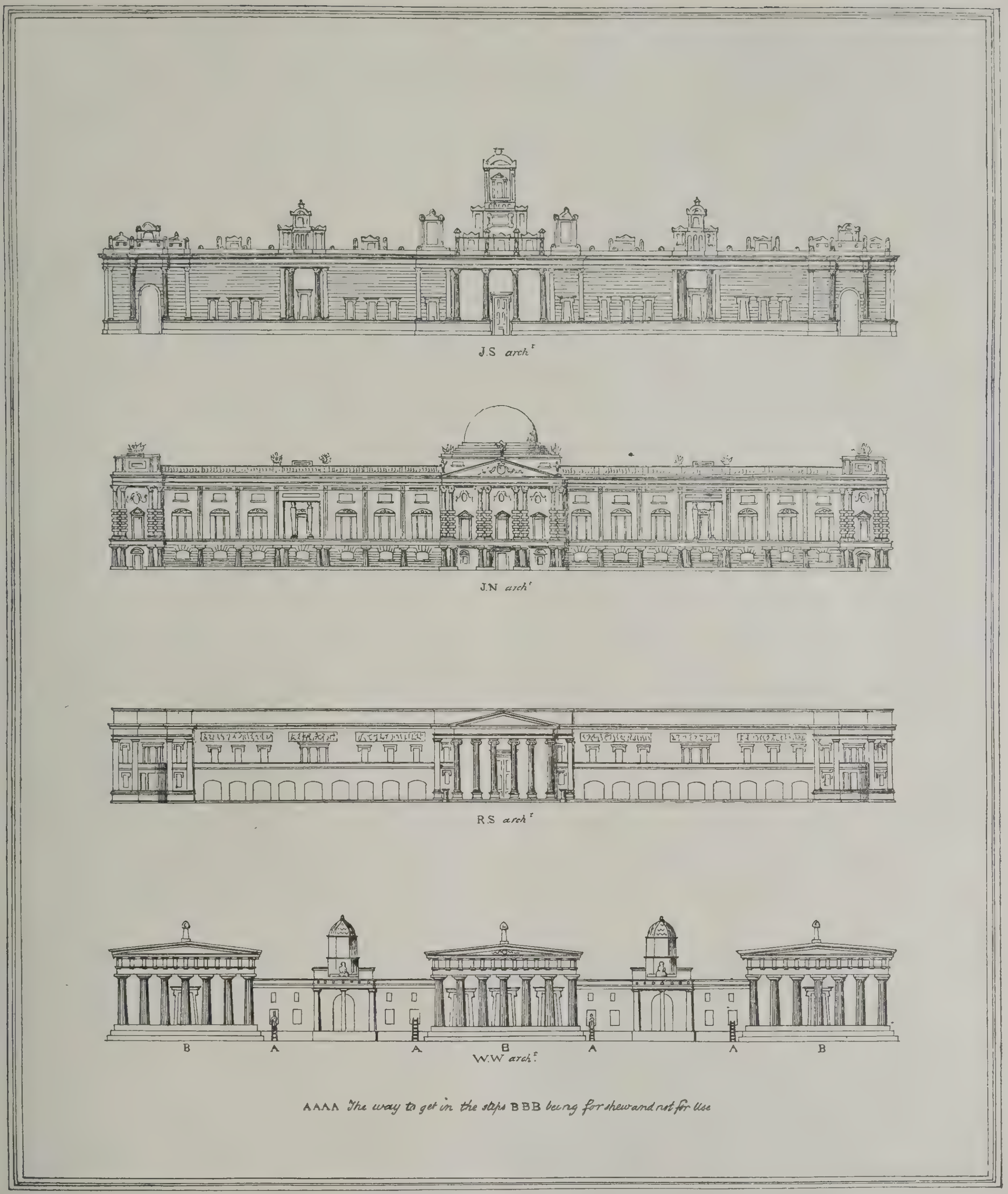
It is evident that we are approaching an acute crisis in the Building Industry, the employers feeling that the welfare of the industry can only be promoted by a reduction of 20 per cent. in wages coupled with longer working hours. The employers would also like to secure the introduction of payment by results, but it is understood that this very sound proposal will be dropped. The operatives contend that the proposed reductions will render the wages paid to the lowest divisions of the building industry less than those of the agricultural labourer, but whether or not this point can be substantiated the question whether they were or were not entitled to greater proportional pay would remain. The employers contend that the wages now paid in the industry are in excess of those paid in other industries, and that the difference is operating to the disadvantage of the whole industry. The whole question appeals to us as being one of output, and if Labour would face this cardinal difficulty in a conciliatory manner there would probably be little difficulty in arriving at a settlement which would achieve the object all are seeking for—that is, a lowering of costs without hurting the financial interests of the workers.

Gas Heating.

A letter from a correspondent which we give elsewhere calls attention to the dissatisfaction felt by many who are dependent on gas for heating and cooking purposes. The gas companies, like many other people who possess monopolies, are slow in spending time and ingenuity on what is essential—the provision of the best means for using the commodity they supply in the best manner, while the dangers from gas leakage have been increased because, owing to the changed chemical composition of gas, it is by no means as obvious as it used to be. The result is a most alarming increase in the number of accidents which have recently arisen. Unless we have the command of cheap electricity, as in Norway and Sweden, Northern Italy and Switzerland, gas is by far the cheapest and most efficient heating and cooking power known, and the gas companies have only to bring their methods up to date to put them beyond the reach of effective competition where questions of minimising labour is, as is so often the case now, a paramount consideration.

The R.I.B.A. Final Examinations.

We have before us details of the alternative problems in design set for the Final Examinations of the R.I.B.A. These include a covered way between two Government buildings to connect the buildings at a first floor level to span the roadway between them. Other subjects include the design of a Seaside House with Garage, the design of a School Library, the Architectural Treatment at the Head of a Lake, a Cemetery Chapel and a Tea House in a Public Park. We think it a pity that no attention has ever been directed to certain practical subjects which could easily be set and which are those an architect is often called upon to solve. For example, why should not students have plans of an existing building given them and be called on to design certain improvements and additions, or two frontages in a street, with a space between, the design of which should accord and be in harmony with the buildings on either side. We suggest that such subjects, and others we could suggest, would be an infinitely better test than those usually set, the choice of which evidently occasions those who select subjects some difficulty.



AAAA The way to get in the steps BBB being for shew and not for Use

Designs for the New Houses of Parliament by four Eminent Hands collected by J.B. A.S.S. and submitted to the admiration of the Public as Exemplars of Architectural perfection and as eminently displaying the several Qualifications of Picturesque Variety — Ingenious Novelty. — Chaste Simplicity — and Claſsical Correctneſs —

Caricature in Architecture.

Arthur T. Bolton, F.S.A., F.R.I.B.A.

Nothing is probably more ancient than humorous pictorial criticism of architecture; we may be sure it prevailed in old Rome, for wit of this kind is native to the soil of Italy. The clash of strongly opposing schools is no doubt necessary to produce these sparks, and so perhaps the art is now in abeyance. The interesting broadsheet here reproduced has just been presented to the Sir John Soane Museum by Mr. Aleck Abraham. It can be given a date between the fire that precipitated a new Houses of Parliament, October 16, 1834, and the award of the competition to Sir Charles Barry, February 29, 1836. Although Sir John Soane had retired in October, 1833, he was still keenly interested in the approaching consummation of a project on which he had been engaged by official commission in 1794. He revived his scheme in a chapter of his quarto description of the House, 1835–6, separately issued to his friends, so that it was appropriate that the caricaturist should place him at the head. It would have been no fun to give the veteran's real scheme, and so we are presented with a composite of the Bank screen walls and the National Church designs of 1818 and later, with one or two of his tomb designs, duly exaggerated, thrown in. Soane's real scheme was of great merit, as was recently shown in THE ARCHITECT. John Nash, who had retired about 1831, died May 13, 1835, so that it is quite possible that this print is before that date. He was an easy prey. Carlton House Terrace gives a base to a composition, artfully compounded from the elevations of Regent Street and those of the Terraces in Regent's Park, crowned by a dome after that disastrous one at Buckingham Palace which was removed soon after its erection. Of that misfit the architect ingenuously confessed that he had not anticipated its actual appearance. Nash was of an easy temper and would have been the first to laugh at this joke at his expense. He had an aloof disregard for architectural proprieties quite staggering to serious practitioners.

Wightwick, who knew him well and had been in the office, said with point that Pennethorne should have been over instead of under Nash.

The next victim was an opposite of dense solidity. Turned out of Soane's office after a year's trial, as too hopeless a pupil, he had with his father's academical backing been pushed forward in an amazing manner, so that he was the third of the trio, Soane, Nash and Smirke, who advised the political head of the Office of Works of those days. The design for the Parliament House here attributed to him was easily made up, the Union Club of Trafalgar Square for the end masses, the old G.P.O. for the centre, and the Covent Garden Theatre of 1809 for the rest; the Flaxman frieze panels of this last are, needless to say, not overlooked.

The fourth place could only be devoted to William Wilkins, M.A., who had quite made up his mind to be the winner. Having failed, he stirred up an agitation and wrote a violent pamphlet, to be remembered now only for a bad pun on Barry's name. The latter had very wisely advised in his report that for acoustic reasons the new House of Commons should be lined with wood; the pamphleteer ridicules this, saying that if it succeeds the House would be remarkable for its *Baritone*.

Wilkins is the most severely hit; the caricaturist evidently knew all about him. The National Gallery (1832-8) design is confused with the Gower Street College (1827–8), but Greek Doric is dragged in, no doubt in due deference to his absurd idea of the divine origin of the order, first, so he alleged, used in the Temple at Jerusalem. The notorious non-use of the magnificent Corinthian portico in Gower Street, where everyone goes in by a low-level side door, is, of course, specially made a point of, ladders being conveniently provided. The Britannia of the eastern return of the National Gallery is repeated, in combination this time with the notorious pepper-pots, at which the public has always shied.

A marked feature of Wilkins's character seems to have been plausibility. He published, for instance, a work on the topography of Athens, whereas later students discovered to their astonishment that he had only spent four days on the spot!

He even wrote to Soane, suggesting his retirement as Professor of Architecture, a suitable successor being evidently himself. The veteran merely endorsed this as "an impudent letter from Mr. Wilkins." True he became Professor on Soane's death (1837), but as he died himself in 1839, it was of no use to him, and no lectures of his were delivered at the Academy.

As to the probable author of the caricature, it may be assumed to be the work of one of the many ardent advocates of "the National Style," that ingenious label of which James Wyatt had made so much use before his death in 1813. William Whewell (1799–1866), Master of Trinity College, Cambridge, has always been suspected of the cleverest skit on Soane, and he had the ability to have motived this caricature even if he could not have designed it himself. Wm. Porden, who was behind the famous skit of 1780, had died in 1822; besides, he was too much associated with the Smirkes.

Everything points to A. W. Pugin (1812–1852), whose "Contrasts," first edition, 1836, was already in contemplation, as the author. Although the famous libel of 1836 on the architects of the day was "printed for the author and published by him at St. Marie's Grange, near Salisbury, Wilts," where Pugin was living at the time, it is to be noted that it bears the imprint of "Moyes in Leicester Square," a printer who owed much to Soane's patronage. The sheet here reproduced is not included in the "Contrasts," but it is possible it may have had some connection with Pugin's reply (Salisbury, August 18, 1835) to Hakewill's pamphlet, "Thoughts upon the style to be adopted in rebuilding the Houses of Parliament." (A. W. Hakewill, 1835). Pugin's reply is a tiny printed letter with no illustrations, but on the back the "Contrasts" is advertised "In Progress." £1 1s. 0d. 24 plates.

There is evidence in plenty from the analogy of our print with the "Contrasts." In the text (p. 31): "No one can look on Buckingham Palace, the National Gallery, the Board of Trade, the new buildings at the British Museum, or any of the principal buildings lately erected, but must feel the very existence of such public monuments as a national disgrace." And: "We have only to look into those nests of monstrosities, the Regent's Park and Regent Street, where all kinds of styles are jumbled together to make up a mass."

The final plate, moreover, is a great circle, like a monastic seal, with, on a border, "Weighed in the balances and found wanting." In the centre is a pair of scales, wherein a Gothic cathedral is weighing down a whole group of the Classic buildings of the day—such as Decimus Burton's Colosseum, Soane's Board of Trade and church, Smirke's Union Club, Nash's house and his All Souls' Church, Wyatt's Duke of York's Column, Inwood's St. Pancras, and Basevi's church at Greenwich (?). To make quite sure of this being understood, there are labels to each scale: William of Wykeham on one against all the above architects, and Railton, Wilkins, Wyatville and Taylor and Cresy (?)—the names in full in the most minute writing are most difficult to read even with a magnifying glass.

It is interesting to note in passing that Basevi, Soane's pupil, had already in 1836 reached a point at which he is found in such company.

The fact that the Union Club occurs in both the single sheet and the book, in very similar representation, may be taken to prove the case.

This 1836 "Contrasts" is not in the R.I.B.A. Library, which has only the second edition of 1841. In that the plate of "the Professor's own House," contrasted with an early Renaissance (?) galleried front from the Rue de l'Horloge, Rouen, no longer appears. Soane had died, and Pugin had the good sense to cancel it.

Some may wonder how Pugin had all this classical material so handy, but his father's book, "Pugin and Britton's Public Buildings," of 1825–1828, on which, indeed, he may have actually worked, would give him all that he required. The elder Pugin came to Soane with a recommendation from Nash for help in his publications. Britton, of course, was one of the Soane circle, and had received many benefits. Things of this kind explain that characteristic which Donaldson noted in his obituary notice of Soane—"his extreme wariness." It certainly seems to have been required in those times.

It may be doubted if Soane ever saw the "Contrasts" of 1836. Pugin's preface is dated May, and the book issued at Salisbury would probably not be known much in London at first. Soane was very weak and ill during the last half of 1836, and died January 20, 1837. Pugin had been a competitor for the Houses of Parliament, in conjunction with Gillespie Graham, of Edinburgh. It would be very interesting if his design could be recovered. From a newspaper notice of the competition it would appear that Graham's solution was on the lines of Sir John Soane's scheme, "in two parts connected by a gallery," representing possibly a Gothic version of Soane's great colonnade.

The late Ewan Christian, who worked on one of the sets sent in, told the writer that "he saw Barry's almost on entering the Hall, and that it was incontestably superior to all the others."

This curious caricature will probably be known to few, and its reproduction here will serve to recall a memorable occasion and the heated warfare of olden times.

Architecture and Decoration.

The first of the weekly afternoon lectures arranged in connection with the Royal Academy Exhibition of Decorative Art was delivered by Sir Reginald Blomfield, M.A., R.A., on Wednesday last, the 17th inst. Sir Reginald, who took "Architecture and Decoration" as his subject, said history showed that however content an architect might be with the completeness of his own art, mankind in general demanded something more. The problem for the artist was, not only to draw well and paint or model or carve, but to co-ordinate that with architecture, so that the two or more arts all pulled together towards one pre-ordained end, as was done in the Parthenon.

Aldrich, the famous Dean of Christchurch, stated in his manual of civil architecture, 130 years ago, that "too much ornament crowds out beauty." That is what had happened in the earlier Renaissance till really competent architects took charge—men such as Bramante, Peruzzi and San Michele in Italy, Inigo Jones in England, François Mansart in France. Few things had done more to retard the art than this misconception of ornament as architecture. Sculpture of the meaningless kind is the expression not of an artist's mind, but of a tradesman's skill paid by the yard. The great periods of architecture were precisely those in which sculpture has been most under restraint. In the weaker periods sculpture got out of hand, breaking all measure, degenerating into vulgarity and even nonsense, as one may see in the conventional trade ornament of modern buildings.

The placing of ornament was a matter of the first importance. Good ornament in the wrong place was worse than no ornament at all, and the architect is directly responsible for this. It was no use placing sculpture where it could not be seen, or was seen under conditions which reverse its values, or where the space was so contracted that the sculptor has no room to let himself go. The columns of the Third Temple of Artemis, at Ephesus, were a familiar example of fine sculpture in the wrong place. The lower part of these columns is surrounded by figures in relief, streaming round the columns and weakening the impression of enduring strength, which is obviously the very essence of a column. The twisted columns of Bernini's Baldachino in St. Peter's are another familiar instance of misapplied skill.

In the determination of ornament the architect and the sculptor ought to pull together from the first. Having come to a working agreement, they had next to consider the purpose of the building and the all-important matter of scale—in which latter, more than in anything else, moderns were apt to go wrong. However great an artist's natural endowment, the sense of scale has to be painfully acquired by much study of buildings and meditation on sculpture in relation to buildings; and no amount of designing on paper will build up this sense in the architect, nor will modelling in the studio, however accomplished, take its place for the sculptor. Down to the end of the eighteenth century artists were saved from glaring faults by a well-recognised standard of technique and by accepted principles of design. All this was lost in the general upset of tradition which finally crystallised in the rise of the Romantic School, and the artistic anarchy prevalent ever since. In the Gothic Revival attention was unhappily concentrated on detail. Nowadays the training in schools seemed to have gone to the opposite extreme and to have become academic in the wrong sense. There has grown up an unfortunate division in the arts, each working in his own corner without thought or care of the other. Sculptors and architects ought to be brought into much closer relationship. That it was possible to combine architecture and sculpture with complete freedom, yet without sacrifice of the essential qualities of either of those arts, was shown pre-eminently by the work of Alfred Stevens. It was not enough to be able to model an exquisite figure, if the setting was feeble and the architecture wrong. If one came away from the monument with the impression of some one beautiful detail and the rest nowhere, the monument had surely failed of its purpose. Both Stevens and Bernini conceived of their work as a whole, and not as an aggregation of details, and it was in this more than in anything else that architects and sculptors had so much to learn.

Stained glass occupied a curious, and in some ways anomalous, position in modern decorative art. The fact was that certain phases of art belong to special periods and special states of mind, and it might be that the art of the glass painter is one of them. He and the wall painter are in direct antagonism in that the one deprives the other of the light necessary for the effect of his work. Those who have the custody of our cathedrals and churches should make up their mind whether they want their decoration to go on their walls or in their windows.

Turning finally to decorative painting, Sir Reginald Blomfield said the interior of a building ought not to be considered as one gigantic picture. The two arts of painting and architecture were not really united where one of them has to be sacrificed entirely. The better way was for the architect to endeavour to realize from the first the general problem of his scheme, the relation of plain to decorated surfaces, and to reserve in his design the spaces which he wishes to have painted, definitely marking them off from the constructional features of his building. Within the spaces so allocated he would leave the painter a free hand and make no further protests on the score of illusionism.

Apart from the difference of treatment necessitated by the difference of purpose (as, for example, that of a church and that of a town hall), different modes of architecture carry with them their correlatives in painting. If the painter wants an orgy of colour he must have orgy of detail to go with it. There was another matter in which the painter might with advantage work more closely with the architect, and that was in the design of the architecture that he introduces into his painting. The great Italian decorative painters took the trouble to master architectural and constructional details thoroughly.

There were signs that decorative art is waking up again, and that out of all the welter of experiment of the last twenty-five years there was emerging a definite tendency in one direction—a fresh ideal of the painter's work. The best of the younger men were availing themselves to the full of all the skill they could command in draughtsmanship, colour and composition, and then deliberately selecting, in order to give to their idea its clearest and simplest expression.

Forthcoming Events.

Monday, January 22.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Papers by Mr. Ralp Knott, F.R.I.B.A., and Mr. W. E. Riley, F.R.I.B.A., on "The London County Hall," 8 p.m.

Wednesday, January 24.—Roayl Academy Winter Exhibition of Decorative Art, Burlington House, W. Lecture by Mr. George Clausen, R.A., on "Decorative Painting." 3.30 p.m.

Northern Architectural Association. Lecture by Mr. Nathaniel Lloyd, O.B.E., on "The Rise and Decline of English House Design," 7 p.m.

Berks, Bucks, and Oxon Architectural Association Annual Dinner at Reading.

The Housing Committee of Paisley Corporation have approved of an application to the Board of Health asking permission for the erection of 102 two-apartment houses in place of 102 houses to be closed. The Board have recently granted an increase of eight houses to the total number allocated to Paisley.

DETAIL SHOWING LIFT FOR AUSTIN REED, LTD., LEEDS.
MESSRS. P. J. WESTWOOD & EMBERTON, Architects.

Building Trade Crisis.

The Joint Industrial Council for the Building Trades, which comprises a large number of employers' and workers' representatives from all parts of the country, met at the Ministry of Labour on the 9th inst. to consider questions affecting the industry generally. Decision on the hours question was reserved for the conference of the Wages and Conditions Council, which sat in London later in the week.

The agreed official report was as follows :—

" Upon the invitation of the National Wages and Conditions Council for the building industry, a meeting of the executives of the various organisations affiliated to the council was held to-day, under the chairmanship of Mr. S. Easten, at Montagu House, Whitehall, for the purpose of securing a better understanding of the position by those whose province it is to secure the application of the Council's awards, as to which difficulties have been experienced from time to time. As this was the first meeting of the kind since the Wages and Conditions Council was established, some review of its work took place, and some of the difficult questions about to be considered by the Council were referred to. Eventually a vote of confidence in the Council was carried unanimously, and the meeting adjourned."

The Wages and Conditions Council for the Building Industry met in London on the 11th inst., when consideration was given to the employers' application for the extension of the existing working week and the introduction of payment by results. The wage issue was not expected to arise definitely at this conference, but after the whole of the morning sitting had been occupied in hearing the employers' statement of their claim which was made by Mr. Stephen Easten, of Newcastle, the employers' chairman, it was stated that the employers had submitted demands which " staggered " the men's negotiators The proposals advanced were :—

1. An immediate reduction of 20 per cent. on existing rates both for hour and piece work.
2. An extension of the present working week.
3. The introduction, by degrees, of payment by results on a bonus system.

The employers indicated that the strongest possible pressure was being brought to bear on them by employers in other industries and by representative commercial organisations to reduce building costs, and letters were read stating that other trades were being severely handicapped by the high cost of production in the building industry. The building employers, while pressing for a reduction of wages, did not give any indication of the date on which the reduction would be put into operation.

The Council sat until nearly 7 p.m. No agreement was reached, and the position was regarded as serious. The following statement was made by Mr. Richard Coppock, secretary of the National Federation of Building Operatives :—

" The position is that the employers have put in an application for the extension of the working week to 47 hours for eight months of the year, 44 hours for two months, and 41½ hours for the remaining two months. The operatives were unable to agree to any extension of the working week.

" Side by side with the demand for longer hours there is a desire by the employers to reduce the wages of all operatives by 20 per cent., which incidentally means that the low-paid labourers in the building industry would receive less than agricultural workers in many districts. The proportion of the reduction, however, is negotiable. The operatives maintain that in consequence of the fact that there was a departure from the sliding scale to meet the position of June 1 last year, and that the figures of the cost of living show there has been no decrease, but rather an increase, they are entitled to claim stability of wages and hours for a period of twelve months.

" The employers were unable to concede this or discuss the matter further, and a complete deadlock ensued. The matter has been adjourned for consultation on the part of the respective memberships of the unions and the employers."

The only statement made by the employers was that the Council had considered the question of wages and hours and the meeting was adjourned to a date to be fixed.

Mr. George Hicks, president of the Operatives' Federation, said the decision of the men would necessarily depend on the next move of the employers. If their claims were enforced and there was no settlement, a crisis would arise, but there would in any event be no stoppage of work before the end of February.

It is understood that the question of the introduction of payment by results raised during the negotiations by one of the leading employers was eventually dropped. Approximately half a million building trade workers throughout the country are involved.

As the result of a meeting of the representatives of the building trades' operatives on the National Wages and Conditions Council in London on Friday, the 12th inst., it was decided that a full meeting of the executives of the various unions will be held to-day, the 19th inst., when, after the full facts of the dispute have been reported, a course of action will be decided on. In the interval arrangements are to be made for organising mass meetings of the men all over the country, and the resolution proposed by the operatives' side of the Council, but not accepted by the employers, will be submitted for endorsement. This resolution was as follows :—" That this National Wages and Conditions Council, having reviewed the present position in the building industry, declares that the interests of the community and those directly engaged in the industry will best be served by a period of stabilisation. We therefore declare that hours, wages, and conditions as now nationally agreed should remain in force for a further period of twelve months as and from March 1, 1923."

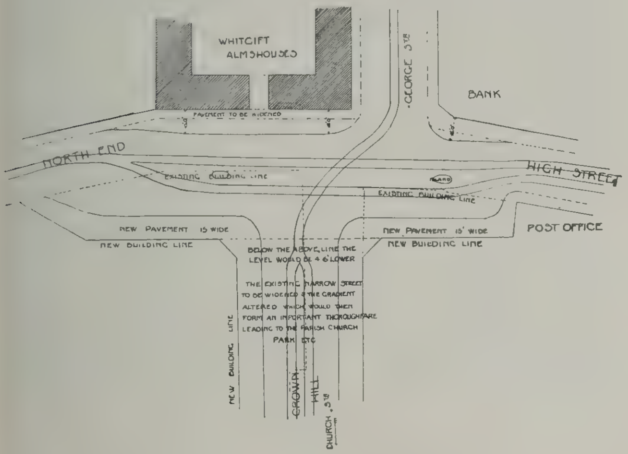
Mr. R. Coppock, secretary of the National Federation of Building Operatives, stated to a reporter that the reduction of 20 per cent. would mean 4d. an hour off the wages of men now receiving 1s. 8d. an hour. In the event of the 20 per cent. being enforced, and assuming a full week's work—which was very rare—the wages of mechanics would be reduced to £2 19s. 3d. a week, and labourers to £2 4s., these figures being for the higher paid grades. The reduction of wages of the craftsmen throughout the country agreed to during 1922 amounted to 30·7 per cent. for mechanics and 40·6 per cent. for labourers. The cost of materials during the same period had decreased only 8.94 per cent. and the operatives declared that the employers should look in another direction for the reduction of costs in the industry rather than to wages. During the last twelve months there had been a rapid rise in certain commodities required for building houses. Turpentine had advanced 43·84 per cent., linseed oil 13·16 per cent., and some timbers had also advanced in price. To-day the prices of building materials in the aggregate were bordering upon 250 per cent. above pre-war. In 1914 the cost of the best stock of bricks was £1 16s. per thousand; to-day it was £4 2s. Under the sliding scale, continued Mr. Coppock, the building operatives had suffered reductions of £388,000 a week, and on an average they had lost 20s. 4d. a week per man since May, 1921. Evidence was submitted by the operatives to the employers that houses had been erected on the present rate of wages and conditions at £350 each, and were being let at an economic rental of 7s. 1d. a week. This was in Yorkshire, an A Grade area, where the rates of wages were highest. The houses were perfectly watertight and well built.

Mr. George Hicks, president of the Operatives' Federation, also interviewed, said there had been no dispute of any magnitude in the building industry during the last nine years, and during the past three years there had been no dispute with any federated employers, and in a good many places there had been no dispute during the last twenty years. " We are hoping," he said, " that reason will prevail among the employers. We have given our contribution to the industry in the shape of a reduction of £388,000 per week. The building merchants have only given a contribution in the reduction in the cost of materials of 9 per cent. Our reduction is 30 per cent. for craftsmen and 40 per cent. for labourers. We say that if 20 per cent. is to come off wages why does it not come off the cost of materials ? Speaking generally, we are convinced there will be the strongest resistance to the extension of the 44-hour week."

The National Federation of Building Trade Employers on the 12th inst. issued the following statement :—

" The employers believe that to stabilise hours and conditions at their present high level would be an injustice to those industries which, having been forced by economic circumstances to accept a much lower rate than certain industries, are now pressing for analogous reductions in other industries. They further believe that the reductions already made in the building industry have prevented a worse state of things by rendering economically possible a good deal of the higher class building work, but they also recognise that the large amount of housing and repair and maintenance work which is overdue is still held up because it is not economically possible to go on with it. They consider that the experience of the last reductions shows that further reductions in the cost of building work are likely to promote a lot more business, with all the consequent advantages of more and cheaper homes for the people, economic rents, more employment, and a reduction of the expensive and unsatisfactory outlay on doles. In considering the figures put forward by Mr. Coppock, it is not apparent how he gets at his figures of £2 19s. 3d. for skilled men as the weekly wage after the reduction claimed by the employers. The " A " rated towns now get 1s. 8d. an hour ; 20 per cent. reduction would make their rate 1s. 4d., and a 44-hour week at 1s. 4d. yields £2 18s. 8d. But the employers propose a 47-hour week, which yields £3 2s. 8d., and, taking into account the shorter hours which have to be worked in the winter four months, the average weekly hours for the year would be about 45½, which, at 1s. 4d. an hour, makes the proposed average weekly wage for full time £3 0s. 8d., the labourers' wage being 75 per cent. of that—namely, £2 5s. 6d. According to the *Shipbuilding and Shipping Record* of January 3, the time rate wages in the shipbuilding industry for January, 1923, on a 47-hour week is: Skilled trades £2 8s. 6., and labourers £1 18s. 6d. It will be seen, therefore, that even after the reduction proposed by the building trade employers, the wages in the latter industry would remain from 8s. to 10s. a week better than those in the shipbuilding industry. As regards materials, while it is true that some decline in price has taken place, both employers and operatives in the building trade believe that the industries manufacturing for building purposes have not yet made an adequate contribution towards the reduction in the cost of building which is so vitally necessary."

Whitgift Hospital, Croydon.



Mr. Thomas Mason, of Temple Court, Reigate, sends us a plan, which we reproduce above, showing the manner in which he considers the problem of street widening can best be solved without interfering with the Whitgift Hospital.

Correspondence.

Back Breaking and Gas Poisoning.

To the Editor of The Architect.

Sir,—Before the War gas companies and stove and cooking stove manufacturers protested against the introduction of any new and modern design for gas cooking purposes.

The thought of a change could not be entertained for a single moment until the huge stocks of the back-breaking patterns had been disposed of to the public.

To-day, aften ten years, in which the domestic conditions have entirely changed, when all of us recognise that the majority have to do our own cooking and other domestic work, the old back-breaking cooker is still manufactured and supplied to the public.

True, some very efficient models are on the market, but these are not available for the majority owing to their fancy prices.

Surely some device could be invented that would heat water whilst cooking is in progress.

To-day our gas is far more dangerous than it was a year or so ago. If our old fittings leaked a little, the result was only to be seen on the quarterly account. Leakage was always dangerous, but as has been shown by recent accidents, the composition of the gas of to-day greatly increases the danger.

Considering that gas cooking, owing to its convenience, has come to stay, and that the companies make a large income from gas consumption in cooking, it is absurd that they should not spend money on the designing and providing new and improved apparatus which minimise if not eliminate defects which cause danger and discomfort.

If they did so they would both improve their own position, and force the makers of gas cooking apparatus to scrap obsolete models and bring themselves into line with modern requirements.

Since writing the above I have read a report of Tuesday's proceedings at the Board of Trade enquiry on charging for gas by therm, in which the manager of the Nuneaton Gas Company seems to very much voice my own feelings on the subject. This technical witness said there was good reason for the therm system when introduced, but it had now served the greater part of its purpose, and the public would like to return to the system of charging per thousand cubic feet. Much waste was due to the use of obsolete appliances. Gas companies let out on hire cookers which ought to be on the scrap heap, and which were wasting 50 per cent. of the gas.—Yours, etc., X. Y. Z.

"The Architect" Fifty Years Ago.

January 18, 1873.

An Unpractical Man.

Mr. Robert Rawlinson has drawn public attention to the question of healthy dwellings in a way which leads us very much to doubt whether he deserves that title of an "eminently practical man" which his friends claim for him. To what he says respecting the defective ventilation of sewers and the contamination of drinking-water by faulty arrangements of soil-pipes and overflow-pipes we have not a word of objection to raise. The existing customary arrangements are very often bad; the fault is a very serious one; the remedies he suggests are, so far as he defines them, good; but when he says, as he does more than once in his letter to "The Times," that any artificer "ought" to know how to apply a remedy, we find him eminently unpractical. With some difficulty, and at the cost of a good deal of personal superintendence, an intelligent architect or surveyor who does know what ought to be done can get a plumber to do it; but Mr. Rawlinson ought to know enough about plumbers to be aware, that unless they are being shown what is wanted, nine out of ten will be quite unaware of the importance of doing what has to be done, and unprepared to find the readiest way, or any way, of accomplishing it.

With regard to ventilation of rooms the practical man is more unpractical still. He is so infected with the modern craze (for it has been pushed to that extreme) for ventilating all sorts of hospital-wards by opening the windows in all kinds of weather, that he wishes us to live in rooms arranged as would be suitable for the treatment of serious gunshot wounds; and *coolly* recommends ladies and gentlemen to spend their evenings in great coats, shawls, and bonnets in their own parlours. The fact is, that as long as a current of air is racing up a chimney fourteen inches by nine, at the speed generated by a brisk fire, air enough *will* enter all ordinary rooms to keep the atmosphere fresh; and that the rooms of English dwelling-houses are, as a rule, far better ventilated than those in any other cold or temperate climate in Europe.

The most serious injury at present inflicted upon the atmosphere of our ordinary dwelling-houses arises, however, from a source which really ought to be guarded against, and to which we recommend Mr. Rawlinson to turn his attention. We allude to unventilated gas-burners. The use of gas in private houses is on the increase, and if any person will take the trouble towards the close of an evening spent in an ordinary sitting-room with an ordinary gaselier alight, to mount on a chair, or, better still, will have in a short ladder, and go up it till his head touches the ceiling, he will be horrified to find what a magazine of foul air is seething and stewing over the heads of his family and himself; foul air, which as it cools creeps down the walls and mingles with the general atmosphere of the room. Many persons now find they cannot keep plants in their rooms alive as they used to do, "because of the gas." Does it never occur to them that what it kills plants to breathe is not good for human creatures?

A cheap, simple, and complete mode of carrying off the products of combustion of gas is still a desideratum. If Mr. Rawlinson will communicate such a scheme to the public, and in language so distinct that the artificers, who "ought to be able" but are not able to devise remedies, shall easily comprehend it, he will make good his title, which at present we confess he has greatly damaged—to the distinction of an eminently "practical man."

Competition News.

The President of the Royal Institute of British Architects has nominated Sir Edwin Cooper, F.R.I.B.A. as Assessor in the Bournemouth Pavilion Competition.

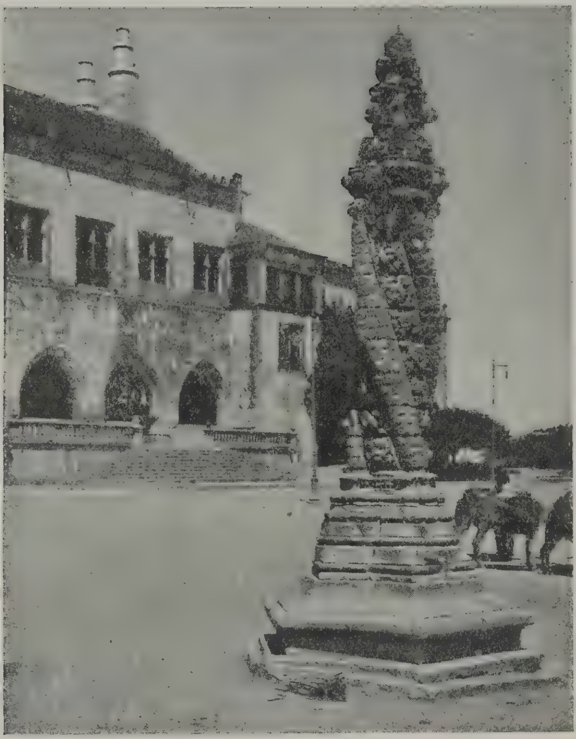
Following upon the "turning down" by the Bradford City Council on the 9th inst. of proposals to erect a further 66 houses by direct labour on the Bradford Moor estate, the Corporation Health Committee, on the 10th inst., again had the matter of housing before them, and recommended that public tenders be invited for the erection of 190 houses on various sites.

According to official figures made available recently, an amount of £1,994,546 has been spent up to November last by the Commonwealth Government on the Federal capital at Canberra. £1,136,525 of this amount was expended on construction work and the balance of £750,950 for land acquisition. In connection with the latter expenditure, it may be mentioned that revenue in this direction has increased from £26,897 in 1919-1920 to £33,894 in 1921-22. An immediate start is to be made with the erection of Parliamentary and administrative buildings at Canberra, and it is intended to appoint a commission on the United States precedent with power to raise funds, lease buildings and residential lands, and generally control the territory.

Notes from Portugal.

By G. A. T. Middleton.

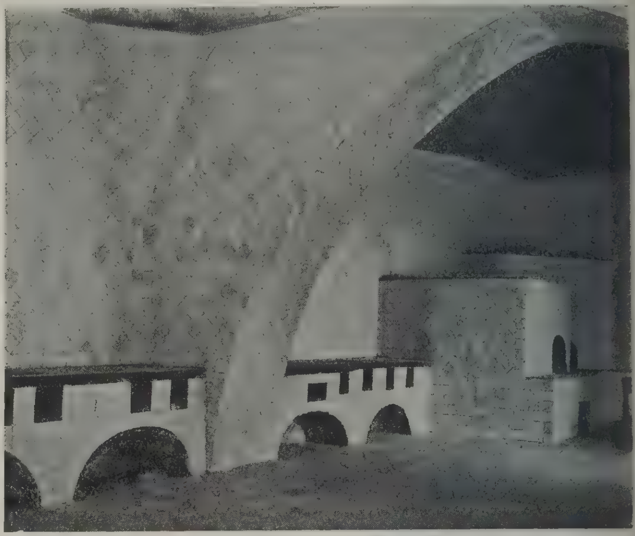
No. X.—Cintra : The Palaces in the Town.



MONUMENT TO VASCO DA GAMA AT CINTRA.

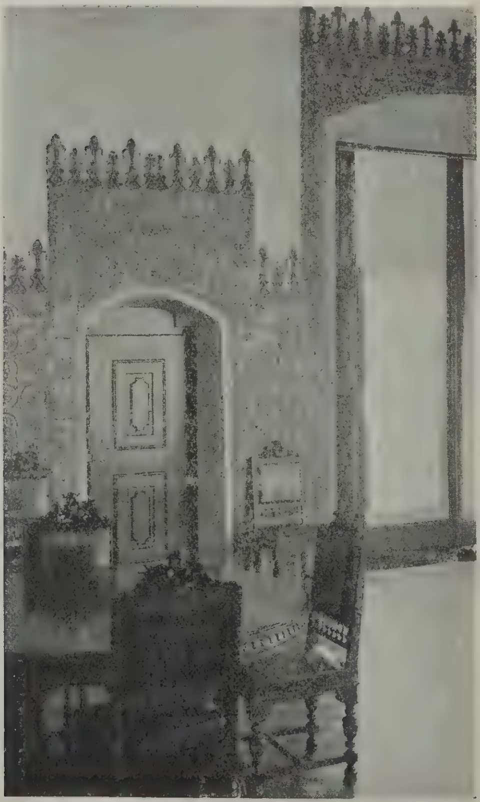
The country between Lisbon and Cintra, no great distance apart, is traversed in all directions by aqueducts which at one time carried water to the capital city, and in a few instances do so still. They are all upon the Roman model, though some have semicircular and others pointed arches, but none are of great antiquity. Nor have they beauty. They are utilitarian structures whose interest lies only in the survival of an ancient type, whose suitability to its purpose was proved by centuries of use.

Perhaps, too, in their simplicity they give piquancy by contrast to the extreme loveliness of Cintra, the once royal residence of Portugal, comparing with Windsor in historical interest and surpassing it in beauty ; for the town is set some 500 feet up the side of a tall granitic hill, low enough to be embowered in great pine woods, yet high enough for a view of the Atlantic to be obtained across the narrow intervening strip of level ground.

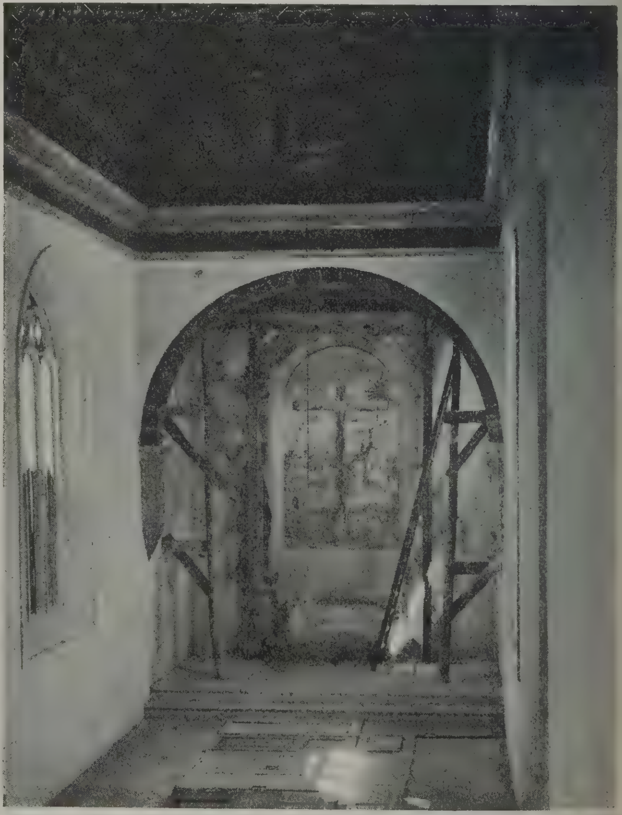


THE MOOR'S KITCHEN, PAL. REALE.

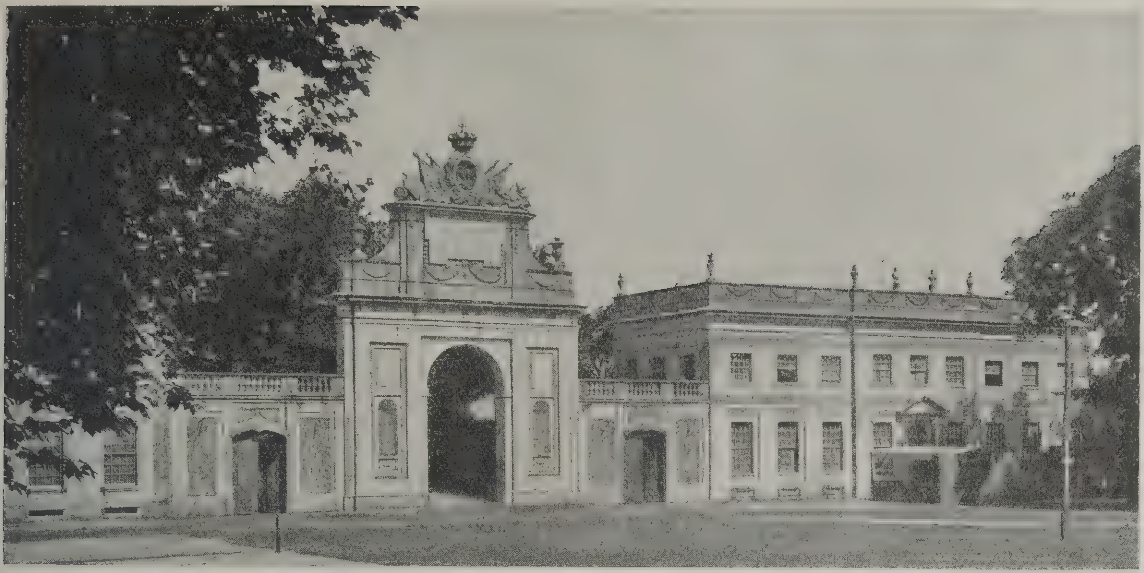
Upon the best site for the enjoyment of the view thus presented there stands the Pal. Reale, a building of no great size as royal places are reckoned, but of considerable and varied interest, for it has undergone many changes from time to time ; and standing in front of it, the first object of interest to meet one's view, is a curious monument to Vasco da Gama, commemorating his achievement in reaching India by way of the Cape. It consists of a twisted



THE QUEEN'S DINING ROOM, PAL. REALE.



CHAPEL OF JOHN I., PAL. REALE (*c.* 1385).

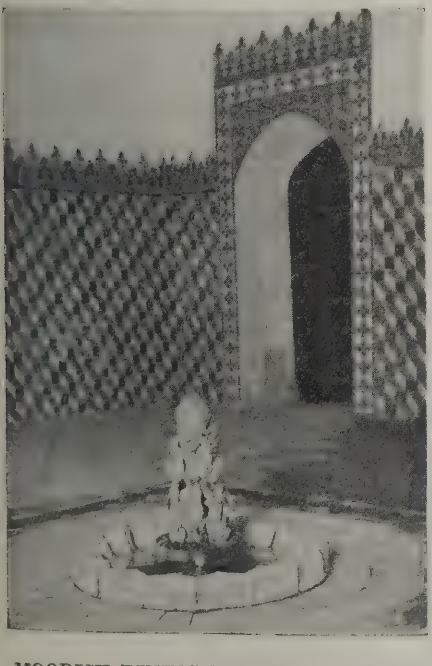


PAL. DO SITTRAES, CINTRA.

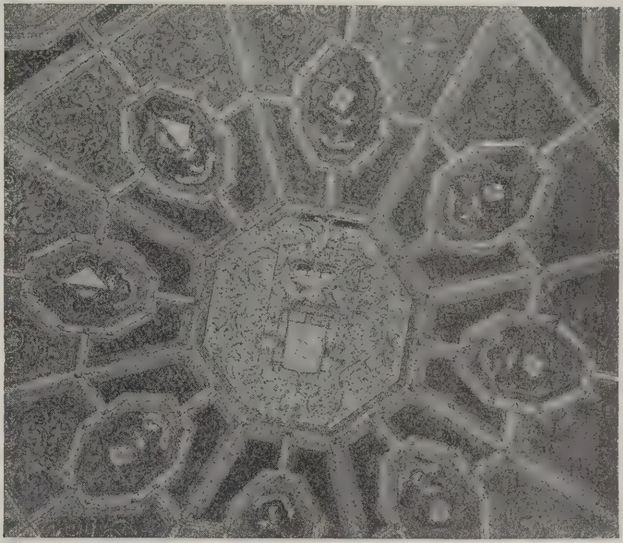
column, to represent the twisted strands of a ship's rope, the strands being alternately ornamented with small floral pateræ and large autumnal vine leaves; for it is, of course, Manoëlian both in date and style. The base is hexagonal, simply moulded and well proportioned, but from the capital upwards the inspiration is Indian, and the whole thing terminates in three small seated figures of Buddha carrying a small howdah on their shoulders.

The front of the palace, as seen in the photograph behind the monument, is sufficient to indicate its mixed character and the general delicacy of the detail—too delicate, perhaps, to be always recognised without close examination, the fountain, for instance, at the top of the broad steps being in itself a work of art of the highest order. The view, however, is marred by the two tall chimneys, which have all the appearance of belonging to old-fashioned Portland cement kilns. But they are Moorish, so that, ugly as they are, it would be vandalism to destroy them; for they rise directly above the two halves of the tile-lined Moorish kitchen, an interior view of which is illustrated, showing the great ovens in one corner and the numerous smaller ovens along one side. With such an arrangement of flues the whole interior must have been kept at a high and uniform temperature, with little risk of draught—an ideal arrangement for good cooking, but very trying to the cooks.

There is a good deal more that is Moorish, either in origin or suggestion, within the palace. The chapel of John I. (*circa* 1385) was originally a mosque, and the ceiling is a fine example of geometric enrichment and rich colouring mellowed by age, the date just given being that of its transformation to Christian usage. The chapel is now undergoing repair, and further Moorish decoration is being disclosed beneath the plaster of the chancel.



MOORISH DINING ROOM, PAL. REALE.



CEILING, PAL. REALE, CINTRA (*c.* 1550).

The Moorish dining-room also still exists, and has a sculptured fountain in its centre, and a tiled dado—the pattern of which is more curious than restful—and a tiled surround to the doorway.

Similar treatment of the walls has been adopted in the queen's dining-room, which still contains the modern furniture which was in use just prior to the revolution of a decade ago, but in this case the tiles, though Moorish, have been brought from Spain and are of far higher artistic merit.

Other rooms of the palace are wholly different in treatment, that which is most elaborate having an octagonal domed ceiling of florid Renaissance design, rich in gold and colour, and with coats-of-arms set in the panels. Gorgeously overdone, it is bewildering; an example to be preserved, but hardly to be followed—at any rate under the dictates of modern taste. Its date is given as *c.* A.D. 1550—that is, shortly after the Manoëlian Gothic had been replaced by Renaissance, which in this instance has all the appearance of having owed nothing to French and everything to contemporaneous Italian influence.

One other royal palace there is in the town of Cintra, that known as "do Sittares." It is of much later date, formal, dignified and simple, in two rectangular wings, having closed parapets which hide flat roofs on either side of a fine arched gateway. It will be noticed that the entablatures of the wings and of the central gateway are similar in detail and in the same alignment, and that the centre portion of each wing projects just sufficiently for emphasis and no more, the emphasis being helped, in adequate but most simple manner, by the vases above the parapet. The design is a lesson in restraint, and in its value in emphasising such rich ornament as is used—in this case the attic above the gate, with its crowning sculpture.

The National Federation of House Builders.

In putting forward the following suggestions for a National Housing Programme, the object of the Federation is to outline a really practicable solution of the housing difficulty which can be put into operation and produce the largest possible number of houses with the minimum of expense to the country.

The house building trade has been suspended because investors have ceased to buy cottage property, and until houses can be sold to the investor the house builder cannot build, and the great and growing shortage will continue. The main object of any national policy, therefore, should be to restore economic conditions in housing, in other words, to restore such a position that the rent and cost shall bear an economic relation to each other.

A revival of the housing industry would operate as a powerful stimulus to employment, not only in the actual building trades, but in all allied trades, and in such trades as furniture making, etc. The amount saved in unemployment doles would go far towards meeting any expenses incurred in granting aid for housing.

No heroic measures of wholesale building with public money will meet the difficulty ; experience has already shown that such a line of action only intensifies the shortage. We consider that the only way is to restore house building as an industry, and this can be accomplished by a National Housing Programme on the following lines.

1. *All Legislation which unduly penalises the owners of house property should be withdrawn at the earliest possible date.*

The first step towards a resumption of building is to restore the confidence of investors in house property, and this can only be restored when house property is free from the onerous and exacting restrictions which are now imposed by the Rents Restriction Act. The withdrawal of the Act would not lead to unduly high rents, for the resumption of buying by the public would cause activity in building, and the free competition would rapidly restore an economic position of rents and costs. The Rents Restriction Act has intensified the housing shortage.

2. *Every endeavour should be made to encourage the people to invest their savings once more in house property.*

An active market for the sale of cottage property in small lots existed before the war. In this way the people were supplied with houses. House property still remains the soundest form of investment if it is secure from political attacks. The confidence of investors will be restored when a strong Government declares its intention of fostering and encouraging the investment of the people's savings in house property. When investors buy houses they can be built in great numbers.

3. *All Local Authorities which build houses in the future should be required to charge economic rents except where the houses are erected for the clearing of congested areas.*

If the local authorities can build houses and let them at any rent which the council think fit, it means a loss to the general tax payer and rate payer, it pauperises the tenants, it encourages jobbery in local elections, and it prevents private enterprise from building similar houses in the same district.

4. *If any State assistance is granted for housing it should be granted equally to municipalities and to private enterprise building houses of a good type. Some form of assistance is absolutely necessary to build houses for the working classes. The considered opinion of the Federation is that the most efficient and economical method of affording the necessary assistance is by a cash subsidy to the owner of all new houses of an approved type. An alternative method in some districts might be found by exemption of new houses from local rates for a period of years.*

Unless State assistance is extended equally to all agencies, private enterprise cannot compete on equal terms with local authorities, the house builder will not be able to build, and the whole burden of finding the houses will be thrown on to the rates and taxes.

The system of cash subsidies has already proved to be the best and most economical method of granting assistance. A cash subsidy will reduce the cost to the investor, and by drawing capital to the industry it will rapidly bring cottage property to its proper position as one of the most desirable investments in the country.

The exemption of new houses from local rates has been tried in other countries with great success. There need be no additional expense thrown on the existing ratepayer by this method of assistance. No increase in the education and poor rate need be anticipated by a distribution of the population through the reduction of over-crowding, and the inevitable expense of cleansing and lighting could be covered by a grant from the national exchequer to the local authorities of an amount equal to the property tax received from the new houses. This would not cause any additional expense to the national exchequer. The profits from the public supply of gas, electricity and water should also tend to defray any small expenses caused through the exemption of new houses from local rates.

5. *Every method of encouraging the citizen to purchase his own house should be examined and adopted if it promises to increase the available housing accommodation.*

The following matters will assist those who desire to buy their own houses :—

(*a*) The further revision of the Small Dwellings Acquisition Act, 1899, as amended by the Housing, etc., Act, 1919, and the liberal working of that Act.

(*b*) The extension of assistance to building societies to enable them to lend a larger proportion of the cost of a house than they are willing to do at present. This would enable those with small capital to secure a house of their own.

(*c*) The exemption of new property from local rates for a period of years. This could be applied with equal advantage to encourage the owner occupier as to induce the investment of capital in houses to rent.

6. *Local Authorities should revise their byelaws in order to cheapen the cost of building and roadmaking so that houses can be let or sold at a reasonable figure.*

The building regulations in many districts are out of date and increase the cost of houses and rents unnecessarily. They should be made uniform throughout the country as far as possible, and the most economical standard should be adopted consistent with sound construction. A wide discretion should be given to local authorities to permit of building by new methods, and to do this the provisions of Section 25 of the Housing, etc., Act, 1919, enabling local authorities to permit building by new methods, could be made permanent.

7. *Local Authorities should be empowered to lend money on mortgage to responsible builders developing estates and erecting houses of approved types.*

Under this system the local authorities could advance capital to builders developing estates which would be repaid on the completion and sale of the houses, or transferred to the purchaser as a repayment mortgage. Local authorities would thus control the development of their areas without expense and builders would be enabled to undertake large schemes. This system has been worked with great success by one or two local authorities in the country under private Acts of Parliament.

8. *Prompt and decided action should be taken by the Government to counteract the operations of the trusts and combines in building materials.*

The cost of building is being maintained at an unduly high figure largely by the unreasonably high prices of building materials. Light iron castings, lime, earthenware goods, white lead, bricks and other materials are controlled by combines of manufacturers. When the prices of materials are reduced to correspond with the wages paid in manufacture there will be a material reduction in the cost of building.

For the National Federation of House Builders,
J. Squires, Nottingham, *President.*
H. R. Selley, London, *Vice-President.*
G. F. Darbyshire, Manchester, *Vice-President.*
C. H. Oldham, Manchester, *Past President.*
Geo. Sadler, Nottingham, ,,
R. A. Costain, Liverpool, ,,
A. Waddington, Sheffield, ,,
H. M. Grant, Birmingham, ,,
G. H. Brown, Manchester, *Treasurer.*
Norman McKellen, *Secretary.*

Hadfields (Merton), Ltd., the makers of fine varnishes and japans since 1840, have sent us a very useful New Year's card in the form of a "Heolin" pack of playing cards, which bears the pertinent observation that "Heolin turns up Trumps every time."

The Holly Lodge estate, Highgate, covering an area of some fifty-five acres, near Ken Wood and Parliament Hill Fields, London, N.W., has been acquired by Mr. A. Davis, of 24, Grove End Road, St. John's Wood, for the purpose of forming a garden suburb, which will include about 500 houses of the modern type, suitable for occupation by middle-class residents. A feature of this development will be the retention of large open spaces and some of the famous gardens laid out by the late Baroness Burdett-Coutts. Plans are now in course of preparation, and building operations will be commenced shortly. The estate will be developed on building society lines, so that prospective purchasers will be able to buy houses by payment of a certain sum down and the balance as rent over a limited term of years. Mr. A. Davis is connected with several flat-building schemes in the neighbourhood of St. John's Wood.

Zoning in the Control of Large Cities.*

By Frank Hunt, F.S.I.

The term "zoning" as used for the purpose of this paper comes to us from America, and is there defined as being, in relation to city planning :—

"Action by the State, or by the city under the authority of the State, to control, under the police power :—

(*a*) The heights to which buildings may be erected ;

(*b*) the area of lots that must be left unbuilt upon ; and

(*c*) the uses to which buildings may be put."

Like so many of the words that have passed into current use on the other side of the Atlantic, "zoning" is not a strictly correct word to use in this connection. With us the standard definition of the word "zone" is "a belt or girdle ; any well-marked band or strip running round an object" ; but perhaps it is unnecessary for one to be a purist in this matter as long as it is clear what is the exact meaning attached to the word in our use of it and so long as it serves a useful purpose.

It would perhaps be well at this stage to emphasise a few of the circumstances where the law and practice in America differs from that in England. It will have been noticed that in the definition of "zoning" emphasis is apparently attached to the fact that the regulations are made under the "police power." This does not mean that it has any relation to police as the word is understood in this country, but rather to one of two separate doctrines arising out of the American Constitution. A power to make regulations and laws for the comfort and protection of the subject and the good government of the community falls within that section of American jurisprudence known as "police power," and not under the doctrine of "eminent domain." When property is taken under the power of "eminent domain," compensation must be paid to the owner if he can prove damage, but no such compensation is paid for limitations imposed upon the use of a property if these are imposed under the "police power." It appears that in America various State courts, as well as the United States Supreme Court, have decided conclusively that zoning regulations as adopted in the United States do fall under the "police power." The regulations deal not only with limitations as to the height of and space about buildings, but also as to user, and, it has been stated, they broadly extend to public health, safety and morals, the public convenience and the general prosperity of the community. This extension to general convenience has apparently been needed because it was felt that if "police power" extended only to public health, safety and morals, it might be difficult in certain circumstances to show by conclusive evidence that every detail of a zoning scheme came within a competent exercise of the "police power" ; but with the scope so extended it was hoped that every feature of it could be shown to be a legitimate exercise of the "police power." In the standard form of the State Zoning Act, issued by the Department of Commerce at Washington, the form of words used is : "For the purpose of promoting health, safety, morals or the general welfare of the community," and to this there is appended the following note :—

"*General Welfare.*—The main pillars on which the police power rests are these four, viz. : health, safety, morals and general welfare. It is wise, therefore, to limit the purpose of this enactment to these four. There may be danger in adding others, such as 'prosperity,' 'comfort,' 'convenience,' 'order,' 'growth of the city,' etc., and nothing is to be gained thereby."

There is the difference also between this country and America in the law of access of light. In this country we are tenacious of every ray of light and undertake much litigation to assert a right to it. In some of the states of North America (New York, Massachusetts, South Carolina, Maine, Maryland, Pennsylvania, Alabama and Connecticut) the doctrine of the English law does not prevail, and a right to light cannot be acquired by prescription or the implied grant. In other states (Illinois, New Jersey and Louisiana) the rule of the English law is adopted.

It is obvious that to avoid inflicting injury on the community such schemes of zoning must be capable of adaptation and modification in the course of time ; and zoning ordinances contain provisions for such amendment, with due safeguards against improper use. Thus in one of the principal American ordinances the Board of Appeal must give their decision on a petition for change presented by owners of 50 per cent. of any frontage within 90 days, and if the owners of 20 per cent. of that frontage, or of the frontage immediately behind or immediately opposite, protest against the proposed change, it cannot be made except by the unanimous vote of the Board. The Board of Appeal are, in order to avoid cases of special hardship or difficulty, empowered "to vary any provision of the plan in harmony with its general purpose and intent, so that the public health, safety and general welfare may be secured and substantial justice done."

The question of zoning in the United States has been the subject of a considerable amount of propaganda in the last twelve or fifteen years. Congress made an appropriation for the year 1921-22 for purposes covering the promotion of zoning, and Secretary Hoover appointed an Advisory Committee to the Department of Commerce at Washington, which is issuing reports and papers for the encouragement of zoning and for the assistance of those desiring information.

Much of the control coming under the word "zoning" in America is exercised in this country under the ordinary building laws. Indeed, still wider powers are exercisable in this country under orders made under the town-planning legislation which was initiated in this country by the Housing, Town Planning, etc., Act, 1909.

It must be remembered that in the ancient towns of this country the control of building is a history of slow but sure development over many centuries. The London building laws probably best exemplify the process.

There is evidence that in the City of London regulations governing the erection of building were in force as far back as about the year 1200. Regulations made in the time of the first Lord Mayor of London (1189-1212) are in existence, and in Bell's *Unknown London*, referring to a house in the City in which a murder was committed, it is stated : "Like the rest of the houses, it was timber built, but, in compliance with the City's regulations, stone walls divided the dwelling from the houses on either side."

The Great Fire of 1666 produced the first building Act for London. Such an overwhelming calamity showed the need for more effective measures of control.

The case of London is an example of the development of building regulations from early times, culminating in the town-planning powers of the present day. In the case of other cities in this country there have no doubt been something like corresponding regulations and statutory provisions, though London, owing to its antiquity and the extent of its development, with its position as the capital and seat of the Government, has probably a longer history in building control than any other town in the country.

With the town-planning provisions of the Housing, Town Planning, etc., Act, 1909, a new departure was made, and though these provisions are at present statutorily included as part of our housing legislation, they are more properly a development of building legislation, dealing, as they do, amongst other things, with the width of streets, the fixing of the building line, space about buildings, and the height to which buildings may be carried. They do not, it is true, deal with the primary objects of building regulations—stability and security from fire—but these probably, after centuries of development, have now reached something like finality.

The first purpose of zoning in America, as above defined, is the limitation of height of buildings. Height limits are prescribed either : (*a*) In proportion to street width, or (*b*) by fixed heights. The limits in New York and St. Louis, examples of both methods, are as follow :—

NEW YORK.		ST. LOUIS.	
Zone.	Times width of street.	Zone.	ft.
1	2½	5	150
2	2	4	120
3	1½	3	80
4	1¼	2	60
5	1	1	45

As compared with these the general limit under the building Acts in London (so far as buildings in streets formed or laid out since 1862 and of a less width than 50 feet are concerned and except as regards existing buildings or rebuilding on the site) is once the width of the street, that is, the same as the highest standard in New York. There is, further, a limit, regardless of width of street of 80 feet and two storeys in the roof (a total of about 100 feet) Premises rebuilt are not subject to this limitation, but as there are few old buildings of a greater height, this maximum (about 100 feet) may be regarded as the general limit in London. It is much lower than the greatest height allowed in New York, which is 2½ times the width of the street, or in St. Louis, where the limit is 150 feet.

As regards height, therefore, the standard for zoning in American cities appears to be much lower than under the ordinary building regulations in London.

The second purpose of American zoning is for the maintenance of space about buildings. For this purpose zones or districts are prescribed with varying requirements as to the area of sites to be left unbuilt upon.

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* Abstract of a paper submitted at the Ordinary General Meeting of the Surveyors' Institution, on January 8.

Space limits are prescribed either: (1) In relation to the height of the building, or (2) by actual space, or (3) in relation to the area of the building plot or a combination of these. The following particulars for St. Louis give some indication of the standard of American zoning under this head:—

St. Louis.

Zone.	Proportion of Plots that may be Covered.			
	Corner Plots.		Other Plots.	
	First Storey.	Above First Storey.	First Storey.	Above First Storey.
	Per cent.	Per cent.	Per cent.	Per cent.
A	100	100	100	*
B	100	90*	100	80*
C	100	75*	100	60*
D	60†	50	50†	40

* Rear yard of at least 10 feet required.

† Rear yard of at least 15 feet and side yard of at least 4 feet required.

In New York there appears to be a somewhat similar standard, the proportion of the plot which may be covered in the five zones varying from 100 per cent. to 30 per cent.

In London the building Acts require in the case of "domestic buildings" or dwelling-houses, a minimum space at the rear of 150 square feet, with a minimum depth across the whole width of 10 feet. While this is better than in the inner zones in New York and St. Louis (which, no doubt, include mainly non-domestic buildings), it is lower than is required in the outer zones. The requirement in the outer zones in these American cities is, however, much lower than in a town-planning scheme in this country. The Ministry of Health's standard for State-assisted housing schemes is 12 cottages to the acre "net area" (excluding roads and large open spaces). On this standard about 12½ per cent. of the building plots would be covered. With as many as 20 cottages to the acre the proportion covered would be about one-fourth. Under town-planning schemes a higher standard than 12 houses to the net acre is sometimes prescribed. In a memorandum recently issued by the Ministry of Health it is stated that "twelve, ten and eight houses per gross acre are common density requirements according to the nature of the neighbourhood, but no fixed standards can be laid down." The number in the Ruislip-Northwood scheme, in the various residential zones, is 4, 6, 8 and 12 houses per acre over the whole of a land unit (including road area), a land unit consisting, generally speaking, of land belonging to one owner, varying in size, but not exceeding 7 acres.

The third, and perhaps the most important head of American zoning, is that of the control of user by the fixing of zones in which a particular class or classes of building are allowed and other classes excluded. Zoning of this kind does not lend itself to the prescription of areas within concentric circles to the same extent as zones for the control of height and space about buildings. Instead of concentric zones from a general centre there are areas or neighbourhoods prescribed for the location of various classes of buildings.

The general divisions appear to be: (*a*) Residential, (*b*) business, (*c*) light industry, (*d*) heavy industry, and (*e*) unrestricted districts. In the St. Louis zone the user districts are as follows:—

1. First residence district ..	One-family houses.
2. Second residence district ..	All residences and tenements, hotels, institutions, etc.
3. Commercial district .. (usually principal streets)	Stores and shops.
4. Industrial district	Forms of industry not considered objectionable because of noise, odours, smoke and dust.
5. Unrestricted district .. (chiefly along railway lines and river front)	All forms of user except nuisance regulated by ordinance.

Under this scheme the first zone is limited to "one-family" houses, and presumably the sub-division of houses into tenements equally with the erection of tenement houses would not be permitted. The other areas follow the natural divisions of the various classes of user.

While zoning for this purpose in America is applied to built-up as well as to undeveloped land, the provisions, it appears, are generally not retrospective, so that, while they prohibit new user not in accordance with the regulations, they do not interfere with existing user.

Under the development of town-planning in this country in the future there is not likely to be much that is new of what can be properly described as zoning in regard to height of buildings, because it will hardly be necessary, as the general regulations will secure such control of height as to make anything like systematic divisions of an area into various height zones unnecessary.

In regard to space about buildings, the limitation on the density of buildings, graded according to the character of the locality, will have the same result as American zoning for this purpose; and, as has been indicated, is likely to prescribe requirements in excess of the requirements of American zoning.

It is as regard the control of user that zoning in the American sense can be applied most extensively in this country under town-planning orders.

In a paper issued by the Ministry of Health in April, 1921, the following suggestions as to zoning in connection with town-planning schemes are made:—

"*Zoning.*—In regulating the character of buildings, it will generally be found advisable to allocate separate districts for different purposes, at any rate in town-planning areas of considerable size. Land with special amenities will naturally be reserved for residential purposes, in the absence of special reasons to the contrary, while the existence of good facilities for transport by rail or water will indicate the portions of an area primarily suitable for industrial use.

"The actual allocation of areas will be a matter to be settled in the light of local conditions and circumstances. A simple division into residential, business (i.e., shops, offices, and the like) or industrial will often be sufficient; but in large towns some other divisions may be found desirable—e.g., the provision of separate areas for heavy and light industries respectively or for shops.

"It will have to be considered in each case whether a particular area should be restricted to its predominant use. It may be found expedient, for instance, in some cases to reserve residential areas exclusively for this purpose. It will probably not as a rule be necessary to reserve the industrial areas exclusively for industrial use, except in special cases (e.g., the banks of a navigable waterway), where the peculiar suitability of the site would make it wasteful and contrary to the public interest generally to permit other forms of development.

"It will usually be found necessary to take power to authorise buildings other than those generally contemplated in the particular area with the express consent of the Council. Where such authority is taken in the scheme provision should be made for a right of appeal to the Minister against the decision of the Council."

The zoning possible under the town-planning Acts relates only to undeveloped land, the statutory definition being, "land which is in course of development or appears likely to be used for building purposes." Where, however, it is desirable for the general objects of the scheme some land not coming within this definition may be included.

The question of the application of town-planning provisions to built-up areas is an important matter for consideration. Two important reports—that of the Royal Commission on Housing in Scotland, 1917, and of the Departmental Committee on Unhealthy Areas, 1921—have recommended such an extension of the Act.

The Departmental Committee presided over by Mr. Neville Chamberlain to consider slum areas endeavoured to follow this line of thought, and apply it to slum areas and the immediate neighbourhood which was likely to develop into slums, and their recommendations on this point are as follows:—

"1. That the town-planning powers should be extended to enable local authorities to prescribe the lines of main traffic routes and to arrange for 'zoning' built-up areas;

"2. That reconstruction schemes under Parts I and II of the 1890 Act should conform to a plan of the whole town concerned, together with its surrounding area, such plan to provide for the ultimate distribution of dwelling-houses, commercial and business premises in the area."

With regard to the town-planning of built-up lands, they say:—

"*Town-Planning Built-upon Lands.*—We believe that interest in the subject would be greatly stimulated if town-planning powers were extended to land already built upon, as is the case in Canada, and to some extent in the United States. It is not necessary to introduce any complex conditions or procedure, but local authorities should have the power in the public interest to prescribe the lines of main traffic routes, and also to arrange

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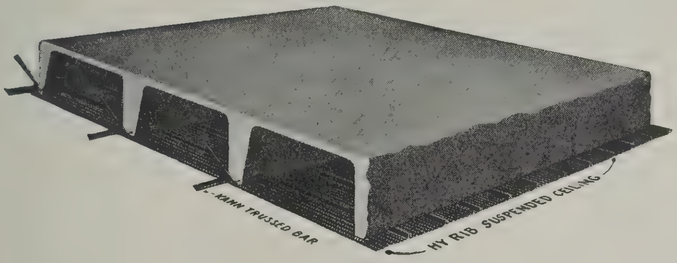

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for 'zoning' in a built-up area. In this connection we should like to call attention to the evidence of Mr. Lawrence Veiller, Secretary to the National Housing Association of the United States. Mr. Veiller informed us that the practice of 'zoning'—that is, of dividing a town into a number of districts and then prescribing for each district certain restrictions upon the user and height of buildings as well as the proportion of site to be occupied by them—had been adopted in some fifteen cities, of which the most important is New York, and that it had proved a popular and practical innovation. It is significant that where zoning has been adopted after careful preparation of public opinion no compensation has been paid, and no complaints have been made public. It has, in fact, been found that values have been stabilised instead of being disturbed by the process."

The first purpose of town-planning of built-up areas recommended by the Committee is in order to prescribe the main traffic routes. The object would be to secure by town-planning such new streets as are now constructed as street improvements, and it is an important question as to how far such town-planning would be economical and efficient for the purpose. As examples, in London, Charing Cross Road and Shaftesbury Avenue may be taken, in order to consider how far the conditions would involve difficulties in such circumstances in case a town-planning scheme were put into effect to secure such main traffic thoroughfares. These were constructed by the Metropolitan Board of Works some considerable time ago, but they, no doubt, are typical of the conditions still existing in London in districts of a similar character.

Information as to the ownership of the property at the time when the streets were constructed is available, and it reveals an extraordinary complexity in the number of interests involved. In some cases the new streets absorbed the whole, or practically the whole, of a property, whilst in other cases little or no part was taken by the actual street sites. The plots, according to the existing ownership, on the frontages to the new street would be, as a rule, quite inadequate for the development for premises of a character suitable to such streets.

In addition to the number of interests that would have to be dealt with, there is the difficulty of synchronising sufficiently the work of re-development to avoid great loss. While it would be easy to lay down a plan to which all building should conform, the practical difficulties of giving it effect in conditions of such complexity would be great, and it may be doubted whether a new street would be secured more cheaply, or anything like so expeditiously, by town-planning as compared with the present method of purchasing outright the property that it is considered necessary or desirable to acquire, and selling or letting the surplus land not required for the site of the street.

As already explained, the American schemes are based upon the exercise of the "police power," which involves the payment of no compensation. The English code has proceeded on different lines in town-planning an unbuilt-upon area; the interests concerned are much less complicated than those met in dealing with a developed district, and in a large proportion of the land covered by a town-planning scheme the building element is hardly apparent. Town-planning schemes, therefore, under English legislation present the simplest phase of this problem, and yet the Legislature has provided that, if damage can be shown by an owner arising from the making of the scheme, compensation is payable by the authority.

In the light of the practice of Parliament and the judicial interpretations of the general attitude on the subject, it is almost certain that a zoning proposal would almost certainly carry with it, in contradistinction to the American system, compensation to a large extent.

With regard to the application, in its simplest form, of the principles of user-zoning to substantial built-up areas, it might safely be stated that in London, as well as in other large towns, there are considerable areas practically limited to residential purposes, with premises, of course, for the necessary ancillary purposes, in the interests of which it would be desirable that the present unrestricted right of user should be controlled. This is, perhaps, eminently desirable just now when large estates are being broken up and numbers of owners substituted for one. In a recent example, about 70 acres in London, almost entirely residential property, was offered for sale. The lessees or occupiers of the houses were given the first opportunity of purchase, and about two-thirds of the property was disposed of in that way. The result was that where there was one ground owner, able to exercise control of user in the interests of the general estate, there are now some hundreds of owners, each free to use his particular property for the purpose he finds most advantageous, regardless of the effect on other property.

An examination of the prices obtained indicates that even in a comparatively central estate of this kind a town-planning scheme limiting user might have been made without compensation. The estate was originally built between 1840 and 1847; the leases of the existing houses had from 18 to 25 years to run; and, generally, the prices obtained only represented the value of the property according to present use.

Since the date of the development of that estate a large part of the county of London has been built. In 1851 the population of the county was 2,363,341, or slightly more than one-half the present population of 4,484,523, while in area the proportion developed since 1851 is greater than one-half. It therefore seems probable that a large part of the built-up area of the county, perhaps much greater than one-half, could be zoned for user without involving payment of compensation.

In the rest of built-up areas, where the property has obtained a potential value for other purposes, restriction of user would be the subject for compensation, and if carried out extensively would involve considerable cost. On the other hand, such limitation of user would have some effect in increasing the value of other property; so that, while the town-planning authority would bear all the loss in respect of the injury inflicted, the private owners would reap the profit from the operation of the scheme without a very extensive scheme of betterment. In such areas it would therefore be necessary to proceed with caution.

It may be concluded from this that the possibilities of zoning in the control of even the built-up portions of large cities in this country are considerable, particularly in regard to user-zoning.

For user-zoning it is necessary to have full information of the present use of property, and for this purpose careful surveys are necessary to be made. In reading the American papers on the subject one is struck by the thoroughness with which the survey is carried out, and the completeness of the maps and studies which are prepared for the purpose of zoning ordinances.

In 1904 a user-survey of the central parts of London was made by the London County Council at the request of the Royal Commission on London traffic. This was before the question of zoning and town-planning came to be the subject of general discussion, and the categories of user under which the information was prepared were as follows:—

1. Commercial and industrial (including private buildings).
2. Residential.
3. Commercial and residential mixed (including houses and shops and similar property).
4. Railways and canals.
5. Public open spaces.
6. Land not built upon (including private squares, vacant building sites, etc.).
7. Streets.

The information was condensed and indicated on a 6-inch map, which is shown on Plate CVI, Sheets 1 and 2, in Volume 6 of the Report of the Royal Commission, while interesting statistics of the proportion of each class of property in the wards and parishes of the area dealt with and statistics under other heads are given on pages 758-779 of Volume 3 of the Report of the Royal Commission.

It is on the advantages of user-zoning that the American reports lay the greatest emphasis. They point to the disadvantages of uncontrolled development and to the results of the intrusion into choice residence districts of the "apartment house," the public garage, and even of industrial premises, possibly carrying on some noisy, dusty or offensive process. By user-zoning this condition is obviated, and, it is claimed, great advantage is secured in the stabilisation of property values, the protection of health and comfort, and the avoidance of waste by the scrapping of buildings in "blighted districts."

Our experience of uncontrolled development, subject to existing legislation as to height of buildings, width of way, etc., has resulted, in the case of London, in a dense mass of building intermixed without any regard to character, user, or suitability of position for the various purposes, extending over a distance of nearly 25 miles north and south and east and west, with inadequate provision for open spaces, recreation or general amenities. Under a well-considered zoning scheme sites most suitable for industry would have been restricted for that purpose, the best sites for residences would have been used mainly for such purposes, and the creation of slums due to bad arrangements, narrowness and overcrowding of buildings on sites would have been rendered impossible. All restrictions in the past to prohibit the growth of a town have failed, as witness the ineptitude of the attempts in the time of Elizabeth and Cromwell; and it would appear that the only hope of controlling the development of big cities in the future would be the careful and systematic town-planning and zoning of undeveloped areas and the application of the same procedure, as far as practicable, to built-up land, with the view of controlling its present use and its redevelopment in the future when it comes to be rebuilt.

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An Important Brick Contract.

The accompanying illustration shows part of the viaduct over the river Brent which is being constructed in connection with the London Electric Railway Extension from Golders Green to Edgware.

The total length of viaduct, which is built with Eastwoods' stock bricks, is about one mile. The facings are machine-made, kiln-burnt stocks, whilst the backing bricks are hard, well-burnt rough stocks supplied from the same works, and chiefly used in foundations, abutments and retaining walls.

The bricks have been supplied at the rate of approximately 400,000 per week, and it is estimated that the total number required to complete the work will be 10–12 millions.

All the glazed bricks for this contract have been supplied by Eastwoods, also a very large quantity of ballast, etc.

Sheffield Society of Architects.

Mr. J. Alfred Gotch, F.S.A., F.R.I.B.A., gave a lecture on "The Notable Houses of Northamptonshire" before the Sheffield, South Yorkshire and District Society of Architects and Surveyors, on January 11.

The lecturer stated that Northamptonshire was a county particularly rich in noble buildings, and showed how new churches were provided and existing ones added to until the Reformation came. At the Dissolution of the Monasteries church building practically ceased, and a great period of house building began, lasting from the middle of the sixteenth century till the Civil Wars of the next century diverted people's attention. Mr. Gotch said that Northamptonshire shared to the full in the building activities of the time, and some of the largest private houses in the country were erected during these years—Holdenby, Kirby and Burleigh, for example—whilst many were considerably enlarged, including Rockingham Castle, Drayton, Rushton, Apthorpe, and Canons Ashby, in addition to which Dingley Hall was built, as well as many smaller manor houses.

Among other buildings of interest mentioned were the Market-house at Rothwell (which was never finished), the very curious Triangular Lodge and the New Building at Lyveden, all erected by Sir Thomas Tresham. The Triangular Lodge sets forth in stone the mystery of the Trinity, everything being in threes, there being three sides, three floors, three windows in each side on each floor, and three legends each with thirty-three letters. Sir Thomas, who was a deeply religious, as well as a superstitious, man, further emphasises these characteristics in the "New Building" (evidently intended for a dwelling house), in that it is planned in the shape of a cross with equal arms, and the cornices decorated with carved symbols of the Passion, the crown of thorns, the hammer and nails, pincers, sword, spear, lantern and the sword of St. Peter with the ear of Malchus adhering to it.

The lecture was illustrated with a series of excellent slides, and a hearty vote of thanks to the lecturer was proposed by Mr. A. F. Watson and seconded by Major C. B. Flockton.

Trade Notes.

Boyle's latest patent "Air Pump" ventilators have been applied to the Cwmtillery Council Schools, Abertillery, and the Henlow Aerodrome, Bedfordshire. They were supplied by Messrs. Robert Boyle & Son, Ventilating Engineers, Holborn Viaduct, London.

General.

The linings approved at the last Glasgow Dean of Guild Court included extensive alterations and additions at the Western Infirmary, involving a scheme that is estimated to cost over £47,000.

The Conisborough Urban Council have decided, subject to the approval of the Ministry of Health, to accept the tender of Messrs. Hanwell & Co., Rotherham, for the erection of thirty houses at £10,236.

The premises adjoining No. 1, Wimpole Street, W., in Henrietta Street, are in the hands of the housebreakers, Messrs. H. J. Greenham. The general contractors for the new building are Messrs. Mowlem & Co.

Mr. Simon Sandbrook, J.P., of Merthyr Tydfil, Glam., retired ironmonger, builders' agent and timber merchant, who died on October 12 last, aged 72, left estate of the gross value of £41,736, with net personalty £36,737.

Professor A. R. Laurie, M.A., D.Sc., F.R.S.E., has been awarded the Keith Prize, value £7, by the Royal Scottish Society of Arts for his paper on "The 'Pier Method' of Building Brick Walls," read during the session 1921-1922.

Messrs. Searle & Searle, architects, Paternoster House, E.C., inform us that, following upon the announcement of the death of Mr. S. Cecil Searle in September last, Mr. Leonard Keir Hett, F.R.I.B.A., and Mr. Arthur Frank Allen, Licentiate R.I.B.A., have joined the firm as partners from January 1, 1923.

Lord Tredegar has given to the King Edward VII Welsh National Memorial Association a country mansion known as Cefr Mably, situate between Newport and Cardiff, and standing in beautiful wooded country. In future it will be used as a hospital for tubercular patients. The cost of conversion is estimated at £41,000, and work will commence immediately

Mr. William A. Robb, an architect in the employment of the London, Midland & Scottish Railway Co., died suddenly in the local head offices of the company in Buchanan Street, Glasgow, last week. While engaged at work he became ill and expired within a few moments. Death was certified as due to natural causes. Mr. Robb, who was about 36 years of age, was a contributor on local affairs to these columns.

Shrewsbury Town Council last week agreed to proceed at once with the reconstruction and widening of the English bridge which spans the River Severn. The total cost is estimated at £70,000, one-half of which will be found by the Ministry of Transport. The Salop County Council will contribute £16,000 and the Borough of Shrewsbury will be responsible for £19,000. The Co-operative Wholesale Society, Manchester, secured the contract.

Kirkintilloch Town Council propose to close 183 insanitary houses, and have asked permission of the Board of Health to erect 200 room and kitchen houses in their place. The Board of Health have written inquiring the reason for erecting more houses than are proposed to be closed, and point out that while the Council base the repayment of loan on 30 years, the Board's maximum is 60 years. The Council have been asked to revise the estimate on this latter basis.

The Cardiff Secondary Schools Committee has decided with regard to the proposed secondary school of two departments for the Maindy district, that provision should be made for 350 boys and 350 girls, and that a site of two or three acres should be acquired. As additional accommodation is required at the Canton Secondary School, a recommendation was sent to the Building and Sites Committee that it was desirable to build four additional class rooms for each department and a common gymnasium.

At the monthly meeting of the Engineers' Surveyors' Association, on January 6, at the Institute of Marine Engineers, 85 The Minories, E.C., a paper was read on "The Cast Iron Sectional Water and Steam Boiler," a subject with which the majority of the engineers present were in daily contact. Through the courtesy of the National Radiator Co., Ltd., of Hull and London, lantern slides of the most up-to-date heating appliances were shown, and also a two-reel film depicting the "Ideal" boiler in manufacture from start to finish. These views proved most interesting and instructive, and were followed by a lengthy discussion, numerous questions being dealt with by Mr. J. A. Peacock on behalf of the manufacturers. Captain W. H. Raven was in the chair.

The London County Council will shortly publish, through Messrs. B. T. Batsford, Ltd., of 94 High Holborn, W.C., the eighth volume of its splendid Survey of London, dealing with the Parish of St. Leonard, Shoreditch. The volume will contain a wealth of historical information, fully documented, beside many illustrations of old houses and other buildings, which, by reason of their antiquity, associations, or architectural interest, are deemed worthy of being recorded in permanent form. The earlier volumes of this great undertaking, which perhaps are not as well known as they deserve to be, deal with the Parishes of Bromley-by-Bow, Chelsea, St. Giles's (including Lincoln's Inn), and Hammersmith. The whole series forms a unique and invaluable record of London local history.

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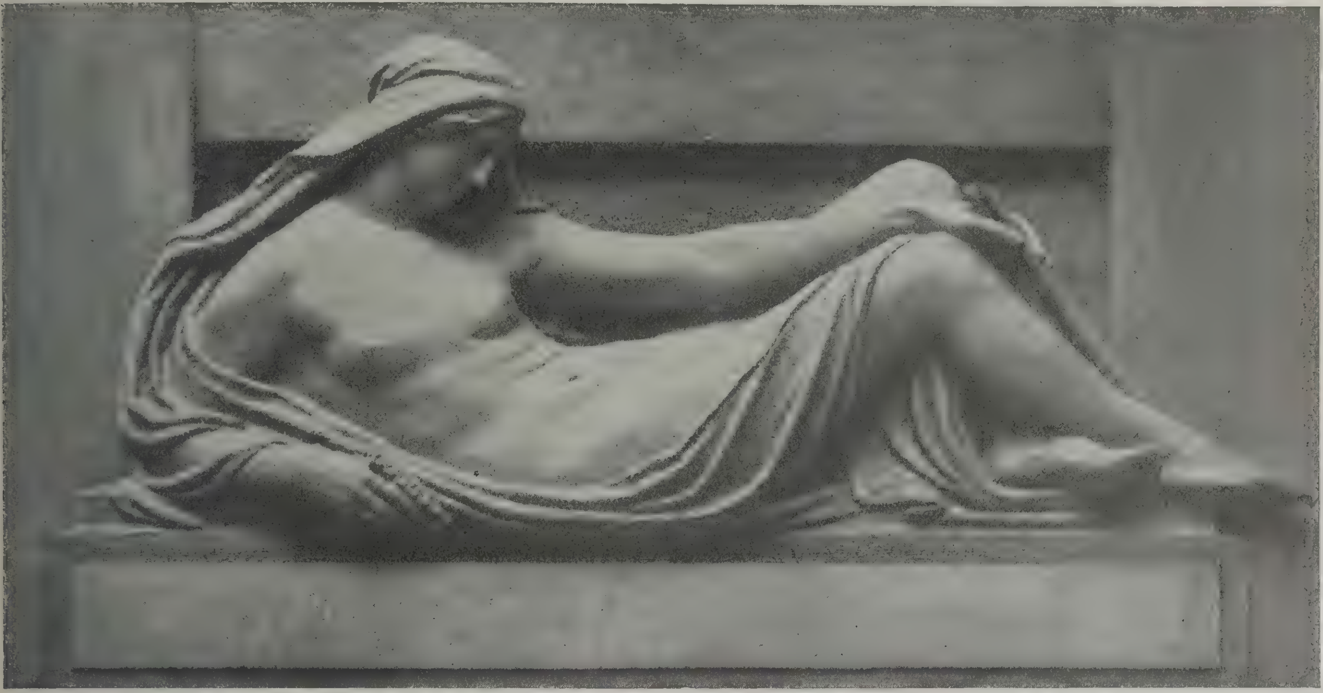


"EUTERPE." FIGURE IN PORTLAND STONE ON THE NEW PREMISES OF THE ORCHESTRAL ASSOCIATION ARCHER STREET, W. CHARLES PIBWORTH, R.B.S.

Some Reflection on the R.A. Winter Exhibition.

The Exhibition of Decorative Art at the Royal Academy is of exceptional importance, as it enables those interested in Art to estimate both the strong and weak points of æsthetic development of the age. It is more interesting and probably more useful to give a general analysis of the impressions produced by it than to criticise in detail a great number of exhibits, for such criticism can only be made intelligible by giving a large number of illustrations, while at the best any detailed criticism is an expression of personal opinion often determined by comparatively small points which may have a local or personal appeal.

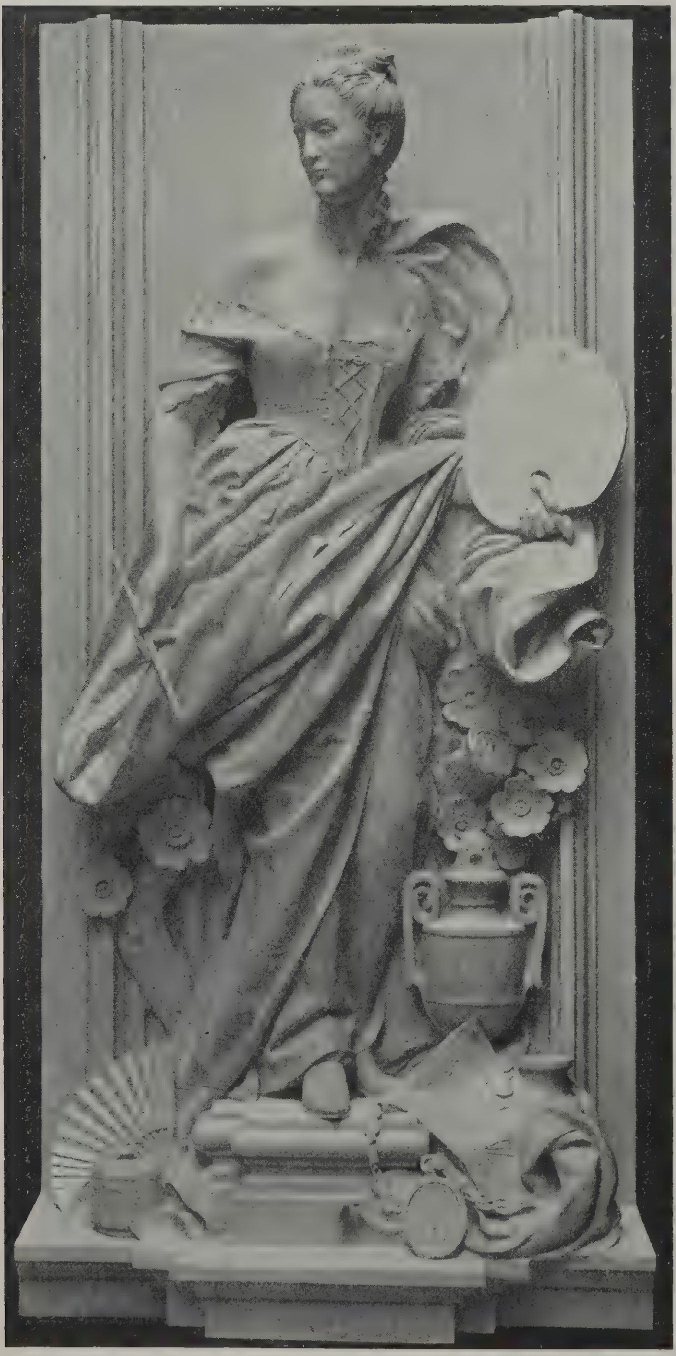
The Exhibition may be considered to be divided into three main sections: firstly, the work of painters and sculptors which, as stated in the introduction to the catalogue, should be widely known among architects, because painting and sculpture are frequently necessary and integral parts of important architectural works; secondly, cartoons and drawings forming a collection of the works of that great designer, Alfred Stevens, whose work was of outstanding excellence in a period of marked mediocrity; and, thirdly, the Arts and Crafts section, which to our mind shows the greatest advance made in English art.

The work of Alfred Stevens does not seem to us to be germane to our purpose. The age in which he lived was probably farther in its ideals and methods from the life of to-day than it was from the times of tradition which preceded it, while the work of a great genius often seems dissociated from that of his contemporary colleagues.

Our first criticism on the work of the sculptors and painters is that, in sharp contradistinction to what Mr. Moira alleges, we regard it as being less in touch with modern life than our architecture is. We do not think that either painters or sculptors recognise that there is now little place in our lives for symbolic works which in the past have formed so great an element in æsthetic composition.

We may, for example, instance Mr. Derwent Wood's figures of Diana, Juno, Ceres, and Venus in Gallery No. 1, and ask what impression other than that of women's figures bearing emblems is conveyed by them. It is not the work either of one inspired with the poetry and romance surrounding the gods of high Olympus or of one who has the art of conveying such impressions to the public. To the average man such subjects are of literary interest alone, and we think the sculptor's work shows that Mr. Derwent Wood feels this. On the other hand, in his design for the gates for a Fifth Avenue house in New York and his figures for the chimneypiece of the same house, shown in a working model (117), are in another category, because the subjects, if less ambitious, are of greater interest to the average man. Mr. Poole's "Painting," on the other hand, carried out in stone at Colnaghi's art gallery, is wholly relevant and interesting. We are closer in time to the eighteenth century, and this delightfully graceful figure, with its accessory detail, recalls to our imagination colouring and incident familiar to us by literary and other associations. Such a subject as "Mischief" (3), by Anne C. Acheson, which is a little garden lead figure, is delightful; but here it does not greatly matter whether or not we recognise the artist's intention. We are satisfied with the silhouette formed, which would always please us, and the same applies to another of Miss Acheson's works (50).

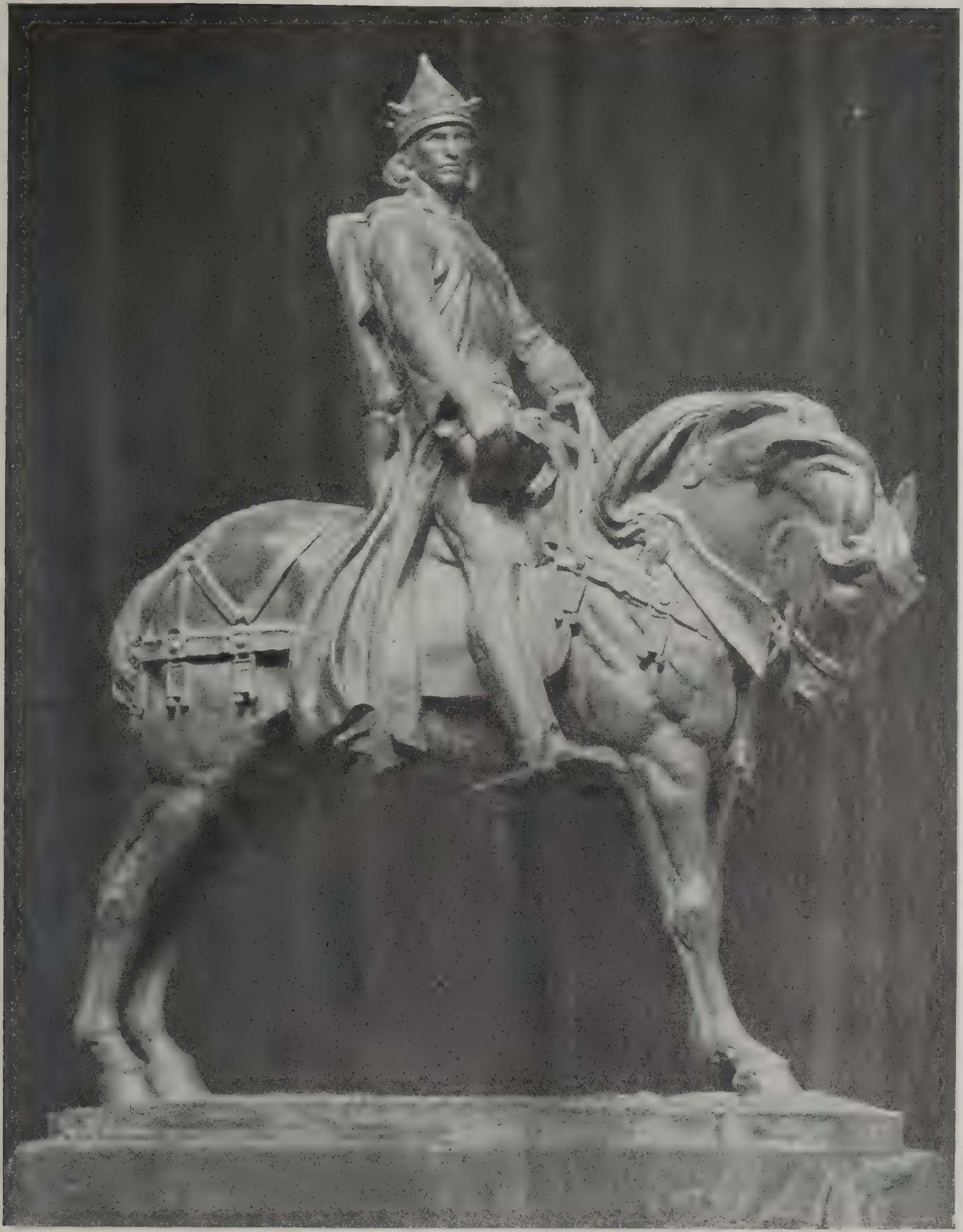
Of Mr. Anning Bell's work, we infinitely prefer the small relief panel of "Mother and Child" (93) to his more ambitious decorative works, such as his study for a panel representing the Seven Seas (152) and "The Awakening" (184), though the last seems to us to be the most pleasing of his larger subject works shown. On the other hand, Mr. Davis Richter's scheme of decoration for the board room of a colliery company (161) is just what decorative painting should be to make an appeal alike in subject, treatment and composition. In such a subject we can instantly seize the meaning, while we are satisfied with the decorative completeness of the composition. That such an impression may be conveyed even where a subject is mythological is evidenced by Mr. W. Russell Flint's decorative panel of Calypso and Odysseus (132), which forms one of a series designed for the vestibule of a lecture theatre, for in it we have both a perfect colour composition and one which is as arresting and living in its type as a modern street scene. To Mr. Flint the Odyssey is evidently a real and vivid narrative which he can convey to others; to many gifted artists it would unquestionably be a literary work of the past. Unless an artist has the rare and exceptional gift of vivid imagination, the greatest skill in technique will not save his work from being dull and monotonous to us, and he would be better employed in expressing other themes. "Neptune," by Charles W. Wyllie (200), may also be mentioned as being in a similar category of excellence.



"PAINTING." Henry Poole, A.R.A., R.B.S.

Much as we value the best work of both decorative artists and sculptors in connection with buildings, we would prefer to see it eliminated than to have the somewhat commonplace group of allegorical figures the meaning of which is seldom self-evident or convincing. The artist may give us careful and painstaking composition, correct costumes and pleasing colours, but we shall sigh for the bare spaces his work has covered. We would have him design and carry out work which appealed to him rather than any set piece, assured that such work alone can give lasting satisfaction. An example illustrating our point is the delightful little group of seven figures carved in wood on the choir stalls of Whiteinch Congregational Church, Glasgow (86), by Phyllis A. Clay. Here we have figures treated naturally and modelled with great delicacy and feeling, not in the least reminiscent of mediæval precedent, but which would be in keeping with any designer's work because they are sincere and vivid. Equally excellent is "Spring," a tapestry portière by Mary Sargant Florence, executed by the School of Weaving at Stratford-on-Avon. Nothing could be better either in composition or rich harmonious colouring. We turn from such work as these to "Crafts," a great wall decoration by Mr. Charles Sims, which, viewed from a suitable distance, has many merits. Still, in spite of its scope and scale, we think it fails. It might represent several other subjects equally well; nor does there seem to us to be any necessity for representing the crafts as a subject for the decoration of a wall. As we said of Professor Moira's work recently, his greatest decorative successes seem to us to have been achieved in his easel pictures, such as "A July Summer Day" and "A Cornish Floral Dance"; while his larger subjects would frequently need explanation, these are intelligible without.

The conclusion we arrive at is that our decorative artists achieve their greater successes when they are not keying themselves up to produce themes which probably have little appeal to them; that symbolic decoration can only appeal to the public to a more limited degree than in the past, and cannot appeal at all unless it be the outcome of the free choice of the artist; and that, as things are, we should produce better memorials were we to concentrate our attention on the design of dignified compositions in form, with little attention to the symbolic representation of subjects. There is plenty of work for the active co-operation of architects with sculptors, and a large, though more circumscribed, field for that between architects and painters, but neither sculptors nor painters are, as a rule, at present following the best lines to that end. Such co-operation must be based on different methods from those of the days in which classic tradition and mythology were prominent and integral parts of the education of the time, and when the uneducated gathered from symbols what they now obtain more directly and readily from the printed page;



BRONZE STATUE OF EDWARD I. Sir Hamo Thornycroft, R.A., R.B.S.

it is, in a word, the sculptor and the painter whose methods are wrong rather than the architect, and this is exemplified in the present exhibition.

The Arts and Crafts division of the exhibition is full of work of the greatest promise, which is natural, as for many years craftsmen have been working earnestly both to achieve excellence in the minor arts of design and to improve methods by the careful study of the means by which the work of the past was carried out. Though we have never actually suffered from an outbreak of *l'art nouveau* here, we have been dangerously near it, and much of what has been exhibited at former Arts and Crafts exhibitions has been both eccentric and unmeaning. Time has, however, altered this, and there is little shown in the present exhibition which is not at least reasonable and sound.

In the minor arts craftsmen can reasonably model many of their productions on traditional lines, for few differences have arisen which affect the design of household appliances, of furniture or decorative hangings. The result of all this is that the best work of the crafts stands at an extraordinarily high level in this country, and of this work a very fine selection has been gathered together. We will only mention a few examples which particularly struck us, which include the designs for letter-headings and book-plates by Mr. J. Walter West (501), "The Capture of Joan of Arc," a group in glazed pottery by Mr. Stanley Thorogood, a model for a carved wooden figure of St. Martha for a Newnham memorial by Mr. George Kruger Gray (524), all shown in Gallery 9. The examples of printed and manuscript books show the enormous advance made in lettering and design. Gallery 10 is devoted to a collection of smaller metal works and fabrics, among which may be mentioned a case of heraldic creatures in enamel by Ernestine Mills (646), and a small brass mirror frame by Mr. W. Bainbridge Reynolds (647), while Mr. Gilbert Bayes sends an admirable example of pierced and coloured woodwork forming a screen panel and entitled "Oxen of Siena" (653). The selection of carved and coloured paper-knives and window wedges by Mr. H. N. Eastaugh (654) should also be noticed. Among decorative models the three small scale models for the decoration of the Old Vic Theatre in coloured terra cotta by Mr. F. W. Sargant are full of life and interest. Much of the jewellery design, of which there is a very fine collection of exhibits, is admirable.

The Architectural Room is given up to furniture, the most outstanding feature of which is a long list of pieces designed by Sir Robert Lorimer, including very beautiful oak bed ends with carved panels of St. Hugh and St. Michael (730 and 740), a circular dining table with carved legs and stretchers (820), a very beautiful tray-top table in burr walnut (825), and many other exquisite examples of design which, while based on tradition, are full of individuality and interest. Comparing these with a number of the works of the late Ernest Gimson which are shown enables us to estimate the extent to which furniture design has been improved in character; for Gimson's work, good as it is in its way, is distinctly reminiscent of the earlier efforts of the Arts and Crafts movement, based on the evident desire to break away from the traditions of the past and a desire to compass the unexpected and peculiar.

Space only enables us to make passing references to a collection which reflects the greatest credit on our craftsmen and designers. Those who are in search of good design for any of the many things required in connection with a house will find what they want here.

What is now most needed is to improve the standard of manufactured articles and fabrics to a similar extent; and it is abundantly clear that if manufacturers would set their minds to this very necessary task, they would find no lack of capable designers to second and direct their efforts. It must be remembered that for one man who genuinely appreciates a picture there are to be found a couple of dozen who delight in a beautiful piece of furniture, while many who have little architectural taste will display genuine critical appreciation of the furniture contained in a house. This knowledge, coupled with the enormous advances which have been achieved by modern craftsmen, should, if properly and fully utilised, lead up to a movement which will in its turn react on the greater arts of rachitecture, sculpture, and painting.

Our three illustrations are from "Modern British Sculpture," published by *Academy Architecture*, 44 Doughty Street, W.C. 1.—[Ed.].

Notes and Comments.

The R.I.B.A. Registration Bill.

We are glad that the present Council of the R.I.B.A. have done what they were elected to do and produced a Registration Bill—which is to come up for approval and sanction at a meeting to be held on the 29th. Whether the Bill is or is not the best that could be produced is another question, and whether it will or will not meet with general support is yet another, while it may or may not have a chance of becoming law. Unquestionably those members of the last Council who considered that Unification should and must take precedence of Registration will look upon it with a critical eye. They have some cause of complaint in being ejected from office before they had even made their report, but in this they suffered as the representatives of democratic institutions often suffer and will continue to suffer if their supposed mandate does not coincide with the wishes of the electorate at a given moment.

Our views on these questions have been plainly put more than once. We regarded a measure of Unification with great misgivings, though it seems more than likely that it might be a very necessary prelude to securing Parliamentary sanction for a measure of Registration. We should only welcome it in a limited sense—that is, that while the amalgamation of the Institute and Society seems to us to be entirely good, we viewed with dislike the inclusion of a number of imperfectly trained men in the ranks of the Institute as this seemed a most doubtful and dangerous means to an end wholly uncertain. For we very much doubt if there is any reasonable chance of obtaining the sanction of Parliament to any scheme of architectural registration. Further, we do not believe that such an Act would either help architects to obtain work they do not get at present, nor that it would in any way render their position either more lucrative or secure. We admit that the great bulk of the profession think otherwise, and for that reason we are delighted to see matters advanced to the present stage. Our hope is that the profession as a whole may be induced to stand or fall on the present proposals which, if accepted, give them that for which they have agitated for years; but, if unsuccessful, we hope they will take their defeat as final for a generation and proceed to concern themselves about matters which appear to us to be more important, and which they have the power if they have the will to deal with. We refer here to the radical and complete reform of competitions, to the introduction of the referendum for disposing of controversial questions of professional policy and to the better promotion of professional education. The status of architects will always in the main rest not on their legalised position but on the impression they produce upon their clients and the efficiency with which they can serve them and promote the objects they have in view.

We have little doubt that the provisions of the proposed Bill will be keenly debated and discussed, but, unless the numerical composition of the Tribunal which is to administer the Act is open to dispute, we see little to object to in the proposals made, which are both short and explicit. We imagine it may be more than a little difficult to decide who can at the time of the passing of the Act be described as being "in *bona-fide* practice as an architect," and we imagine if the measure has any prospects of success that signwriters and engravers may be busy in many districts; but all this is good for trade, if not for the profession, and is, we suppose, incidental in all matters of this nature! The chief if not the only tangible advantage conferred by the measure is that registered architects alone will be able to recover their fees in a court of law, a clause which establishes a distinction unfavourable to the irregular or quack practitioner outside the fold. Whether this is really of great value to many of us we doubt, as it is usually possible to secure a fair and customary return for work done by taking legal action, and the law does not, as a rule, override or disregard the clear custom of the profession. We believe an increasing proportion of the public consult architects just as the country is becoming increasingly sober and temperate. Whether either course can be helped by legislation is a moot point.

Guild Socialism.

Lord Milner in an article in the "Observer" expresses the view that it is natural that the working man, now possessed of as much political power as his employer, should seek an escape from the position of a mere wage earner of that employer, preferring a position of greater independence. The solution is the formation of guilds, who will themselves take over the function of the employer, and we quite agree with Lord Milner that the public should rather welcome than fear such developments, as they would have a stabilising influence on industry as a whole and as responsibility inculcates moderation. The world of fact is, as he says, a world of compromise, in which theoretically irreconcilable principles co-exist, and in the future as in the past Individualism and Socialism will have to rub along together. He further says that the guilds will not commend themselves to a sceptical world by declaring they mean to make a clean sweep of the existing fabric of industry, but that if they commend themselves by good work, such bombast will be forgiven. In this, as in many other questions, Lord Milner shows the clarity of common sense.

Colour in City Life.

The Right Hon. J. R. Clynes has made a fervid appeal for the use of more colour in our buildings. He refers both to the description of the New Jerusalem by St. John, to the Tudor town, and to Venice and other cities, and speaks of the grim domination of stone and dingy brickwork. We do not think Mr. Clynes quite realises that the problem of colour is intimately connected with that of light, and that the introduction of larger masses of glazed and vitreous surfaces does not compensate for the absence of sunlight, nor do we think he has studied the very beautiful, if subdued, colour effects which can be observed even in London and other of our great cities. The use of strong colouring is, in fact, only successful when one can depend on the incidence of strong light, and the colouring of some Eastern cities could not be tried with success in the City of London.

The Fund for St. Paul's.

We learn that the Corporation of the City of London have made a grant of £1,000, and the Salters' and Grocers' Companies a grant of £500 each, to the St. Paul's Cathedral Preservation Fund, which has reached a total of over £43,000.

Among recent contributions was one of twenty guineas from the Society of Architects. A firm in the Midlands, in forwarding an anonymous donation of £500, write that they wish to set an example "to other business firms who have come through the late crisis without being overwhelmed with what has happened to the business world during the past three years," and add that this donation has been sent "in anticipation of better times and with the object of inducing other business concerns to join in a prayer for peace."

We are glad to learn that the amounts contributed to the fund are reaching such considerable figures, and there seems every chance that the full amount needed will be forthcoming. We should have expected the Corporation of the City of London to have given more munificently, but like other public bodies they have suffered from the results of recent troubles.

A Model Public-House.

A model public-house is to be built at Leeds, the aim of the promoters being to build an attractive hotel, where provision will be made quite as much for the man and his wife who require tea or other refreshments as for those who want beer, wines, and spirits; indeed, the bar is to be the smallest room in the building. The ground floor will be occupied by a large tea-room, a bar, and a billiard-room lounge, and on the first floor there will be a dancing and concert hall, measuring 80 ft. by 30 ft. A bowling green and tennis courts are to be constructed at the back of the hotel, as well as a pavilion commanding a view of the sports grounds. The hotel, of which the provisional name is the Middleton Arms, will be erected on a site 6,000 square yards, adjoining the "Circus" which is to be constructed on the housing estate at the terminus of the new electric tramway to this southern boundary of the city.

Attempts to improve public-houses on institutional lines are being made on the fringe of two or three centres, including London and Birmingham. Messrs. Barclay and Perkins have obtained a licence upon the London County Council's housing estate at Bellingham, where they intend to erect a hostelry which will include café accommodation.

We should be greatly interested to know whether the two competitions recently held have been productive of any practical results. In neither case does it seem to us—probably owing to the conditions set—that the problem has been adequately considered or defined.

Gas *v.* Electricity at Cardiff.

The Building and Sites Committee of the Cardiff City Council have been considering the question of the substitution of electric lighting for gas in their schools, and have obtained the following rather illuminating data. The cost for the 19 schools now lighted by gas would be: Electric light, £6,840; gas, £3,895. The estimated cost for consumption of electric light and gas for a period of six months (two winter sessions) of 25 hours per week, was: Electric light (8,450 units), £202 8s. 2d.; gas (1,738.06 therms), £73 17s. 4d. The respective candle power figures would be 19,875 and 15,540. If an allowance was made so as to bring the candle power of gas lighting to the same as electric light, there should be added to £73 17s. 4d. the sum of £20 13s. 8d., making a total of £94 11s. It was further stated that there would be no appreciable saving in the upkeep of painted work if electric light were installed. The City Treasurer made the very sensible suggestion that the gas company should be asked to bring the lighting of a school up to date by improvements, and this suggestion met with the approval of the committee. There can be little doubt that a very similar result would be obtained from such a comparison elsewhere, and that much as we appreciate the advantages of electricity, gas usually remains the cheapest illuminant.

Registration.

Mr. McArthur Butler has addressed a long letter to the "Morning Post" on the subject of Registration, in which he expresses the view that the R.I.B.A. Bill, not being the outcome of united action on the part of the various sections interested, need not be considered very seriously. We do not know whether by this somewhat cryptic remark he indicates that the Society is to oppose the Bill, but we hope this will not be the case. We do not think that the subject is either so complicated or difficult that one Bill is likely to meet with success while another will fail, or that the Bill of the R.I.B.A., while differing in detail from that which the Society might have drafted, differs so much as to fail to deserve their support. We believe its promotion will put the crucial problem to the test, and this is whether Parliament is or is not willing to grant any such powers. If it is, we may anticipate that the Bill as drafted will be modified to meet objections raised in Parliament. Surely this is what is wanted!

Forthcoming Events.

Monday, January 29.—Royal Institute of British Architects. Special general meeting to consider a Draft Bill for the Registration of Architects. 5 p.m.

Architectural Association—Meeting at 35 Bedford Square, W.C. Paper by Mr. Albert Rutherston entitled "The Artist Craftsman in the Theatre of To-day." 8 p.m.

Tuesday, January 30.—Society for the Promotion of Roman Studies. Meeting at the Society of Antiquaries, Burlington House, W. Paper by Mr. G. H. Hallam, M.A., entitled "The Roman Forum." 4.30 p.m.

Wednesday, January 31.—Royal Academy Winter Exhibition of Decorative Art, Burlington House, W. Lecture by Mr. Selwyn Image entitled "The Rise, Aims, and Early Days of the Arts and Crafts Movement." 3.30 p.m.

Competition News.

The Council of the Royal Institute of British Architects have made representations to the Ministry of Health pointing out the desirability of holding an open architectural competition for the design of the new College of Hygiene in London, which is to be built with funds provided by the Rockefeller Foundation of New York This course would give to American architects an opportunity of taking part in the competition.

Members and Licentiates of the R.I.B.A. must not take part in the Brechin War Memorial competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

Members of the Society of Architects are requested not to take part in the above-named competition without first ascertaining that the conditions have been approved by the Council of the Society.

The Birkenhead War Memorial Committee on Monday last decided upon the design for the memorial to local men, which will be erected in Hamilton Square Gardens. The Committee confirmed the award of Major Gilbert Fraser, president of the Liverpool Architectural Society, who selected the design by Mr. Lionel B. Budden, M.A., A.R.I.B.A., of the Liverpool University School of Architecture, to whom a premium of 75 guineas will be paid. In the competition 21 designs were submitted. The accepted design is in the form of a cenotaph about 20 feet high.

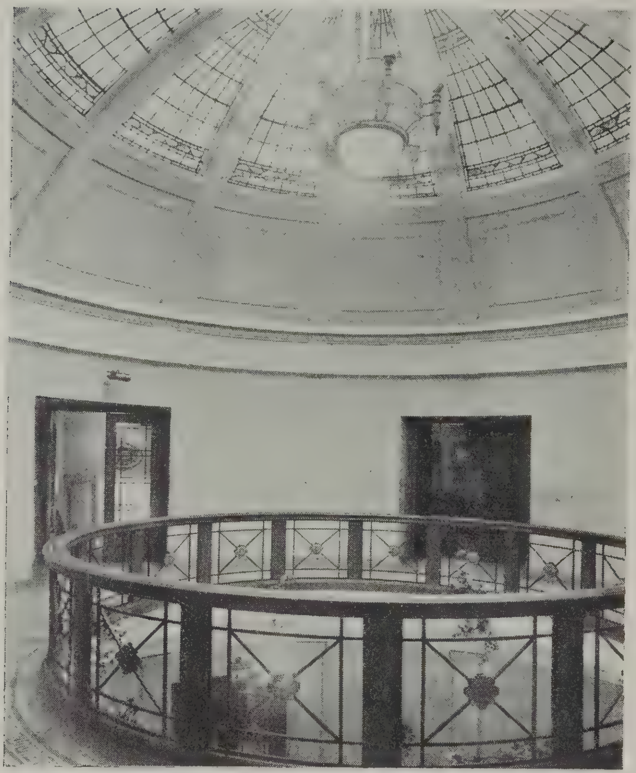
Our Illustrations.

DALZIEL HIGH SCHOOL, MOTHERWELL, PRINCIPAL ENTRANCE. S. BRIDGMAN RUSSELL, Architect.

NEW CHATEAU AT ELVADINGHE, BELGIUM. A. B. LLEWELLYN ROBERTS, Architect (Messrs. COLLCUTT & HAMP).

PROPOSED COTTAGE AT BEACONSFIELD. A. B. LLEWELLYN ROBERTS, Architect (Messrs. COLLCUTT & HAMP).

THE MAJESTIC CINEMA THEATRE, LEEDS. Messrs. STIENLET & MAXWELL, Architects.



MAJESTIC CINEMA, LEEDS.—THE ROTUNDA.

The Majestic Cinema Theatre, Leeds.

Messrs. STIENLET & MAXWELL, Architects.

The situation of the building and the tapering shape of the site combine to make ideal conditions for its purpose, and is admirably adapted in the planning for grouping the largest possible number of people (under the most favourable conditions for seeing) in front of the picture screen.

A large and well-equipped restaurant is entered from the City Square front into an entrance hall panelled up to frieze height, and having floors laid with terrazzo. Two staircases, one from each side of the entrance, give access to the restaurant.

The dining hall has a floor area of about 110 feet by 100 feet, the centre portion of which has a spring floor with parquetry for dancing.

At the servery end of the restaurant is a gallery for the orchestra, with additional space for the public, approached by a staircase from each side.

Cloak room and lavatory accommodation is provided for ladies.

The whole of the kitchen and servery arrangements are on the same level as the restaurant floor.

The theatre has separate entrances from Wellington Street and Quebec Street into entrance halls, with staircases to the balcony levels, and to the rotunda and parterre level. The rotunda has two galleries giving access to the balcony.

There are two foyers about 34 feet by 24 feet, with panelled ceilings and wood panelled dados and plaster decoration, with Neo-Grecian detail. The auditorium provides accommodation on the parterre level for 1,400 people, and in the balcony for 1,200. There are two exits from the balcony and four exits from the parterre in addition to the entrance doors for each.

A platform has been arranged in front of the picture screen, so that the large seating accommodation of the theatre could be used for various other entertainments and meetings.

Among the various contractors were the following: General building and reinforced concrete work—W. T. Weir, Howdon-on-Tyne; fibrous and plain plastering and wood panelling—H. H. Martyn & Co., Cheltenham; plumbing, tiling, mosaic—J. Rowell & Son, Newcastle; all kitchen fittings, etc.—R. Crittall & Co., 197 Wardour Street, London, W.1; asphalt work to walls, concrete floors and roofs—Limmer Asphalt Co., Hull; cinema seating—J. Edgerley, High Wycombe; furniture—Allen & Scott, 36 Hackney Road, E.1; electric lighting—T. G. Usher, Newcastle; parquet flooring—Turpins' Parquet Flooring Co., 25 Notting Hill Gate, W.11; granite columns—Emley & Sons, Newcastle; canopies, casement gates, etc.—Haywards, Ltd., Union Street, S.E.1; staircase casements—Crittall Manufacturing Co., Braintree; pavement lights, fibrous slab, etc.—J. A. King & Co., 181 Queen Victoria Street, E.C.1; slating—W. D. Campbell, North Shields; glazing—E. Pickett & Co., Leeds; lantern light—Mellows & Co., Sheffield.

The terra cotta used in this building is the well known "Lefco" material, made by the Leeds Fireclay Co., Ltd. This terra cotta is made with a vitreous impermeable face of speckled finish. This finish, combined with a combed surface, somewhat neutralises the "sheen" (objected to by many architects), but still retains the advantage that it can be easily cleaned down. The general colour effect of the building is that of a Yorkshire stone, but this is a matter of choice, as terra cotta of the same class can be got to represent Portland or other natural stones, and also the brighter colours of the chromatic scale.

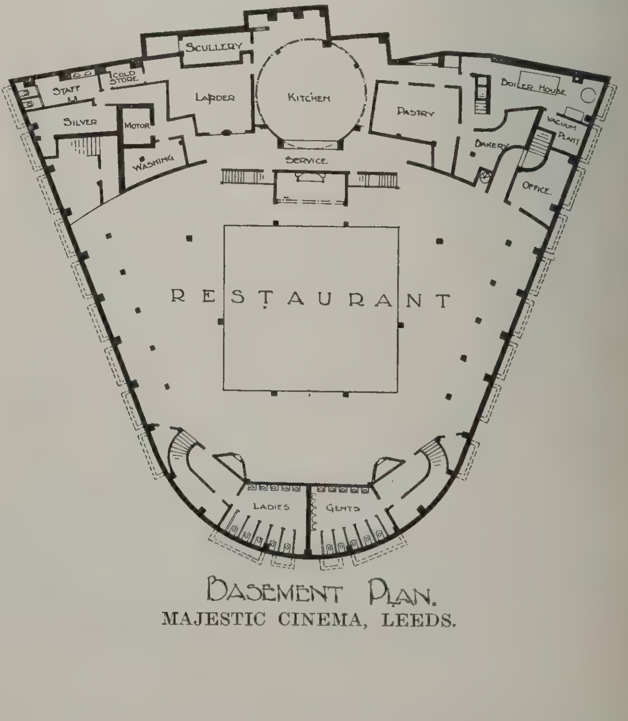
The sanitary fittings, glazed bricks, and "Shepwood" partition bricks for this contract were also supplied by The Leeds Fireclay Co., Ltd.

The main girder, carrying roof couples on each side, was of crescent shape, 94 feet span, 30 feet total height, and weighed 13 tons. It was delivered in three sections and joined together in mid-air. This girder was supported on Warren girders back and front. Wing girders at back, each 63 feet long and 8 feet 6 inches deep, carry the pitched roof and flat roof at back. There are six couples on each side of main girder of spans varying from 49 feet to 62 feet. The diameter of the dome is 86 feet 6 inches, with a height of 18 feet. The steelwork was supplied by H. T. Newbigin, Ltd., civil engineering contractors and structural engineers.

The large flat roofs were covered by the Northern Asphalt & Roofing Works Co., Ltd., Leeds, who also have covered the Regent Cinema, Brighton, and many other important buildings.

The Victory Rubber Co., Ltd., Leyland, Lancs., laid at the "Majestic" about 700 square yards of $\frac{1}{4}$ inch thick rubber tiling, 12 inch square marble effect tiles in the rotunda and entrance halls, 6 inch square red and black tiles in gangways and pit, and red treads with white border and nosings on steps in circle.

The ventilation and heating is carried out by Messrs. Cleworth Wheal & Co., Ltd., Castleton, Lancs., on the most modern lines. A large volume of fresh air is drawn from outside and passes through a heater "H1" into the patented filter "F." This contains sheets of fine mesh expanded metal in series, down which a film of water containing a sterilising agent is flowing, through the distributing trough "L" from the circulating



BASEMENT PLAN.

MAJESTIC CINEMA, LEEDS.

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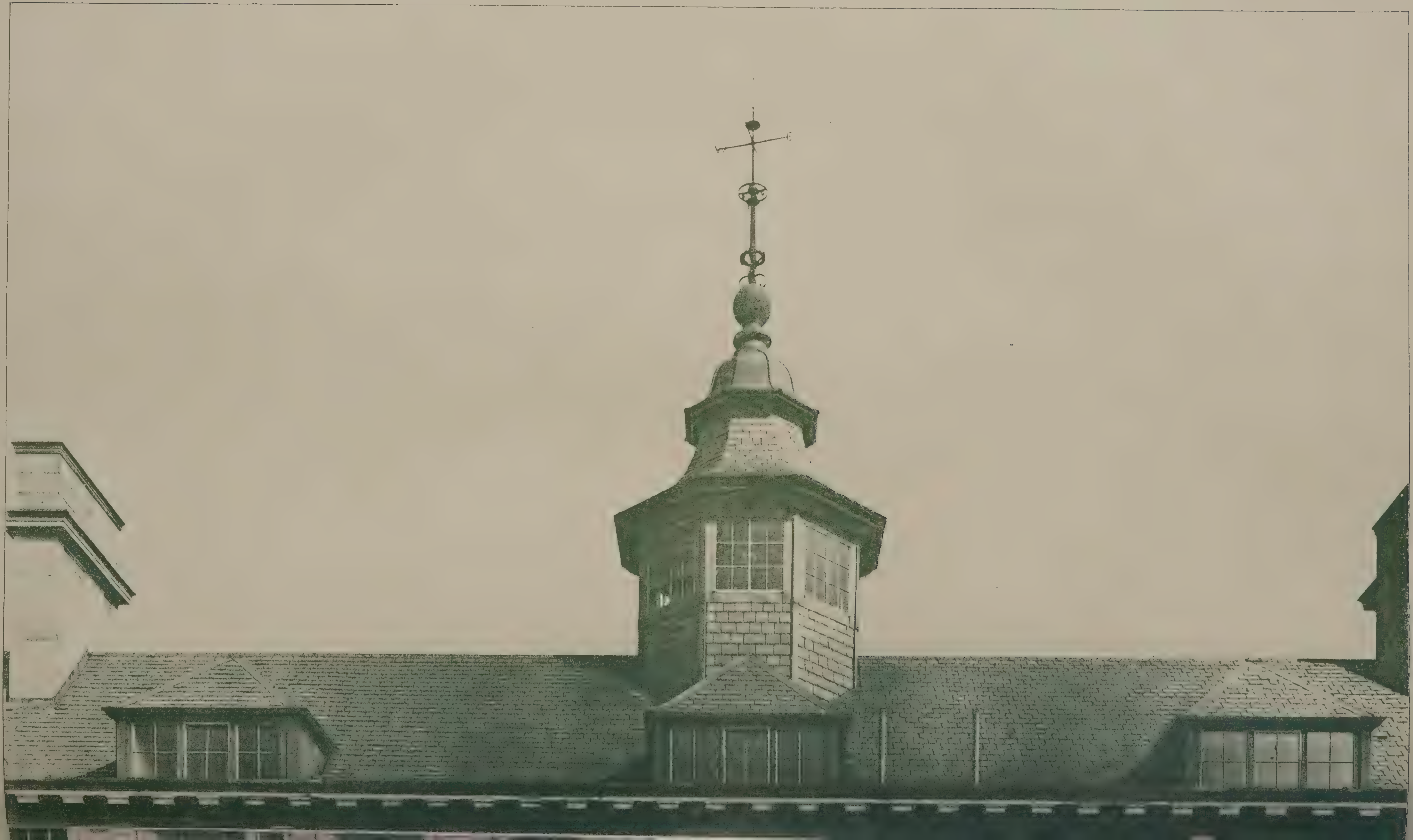

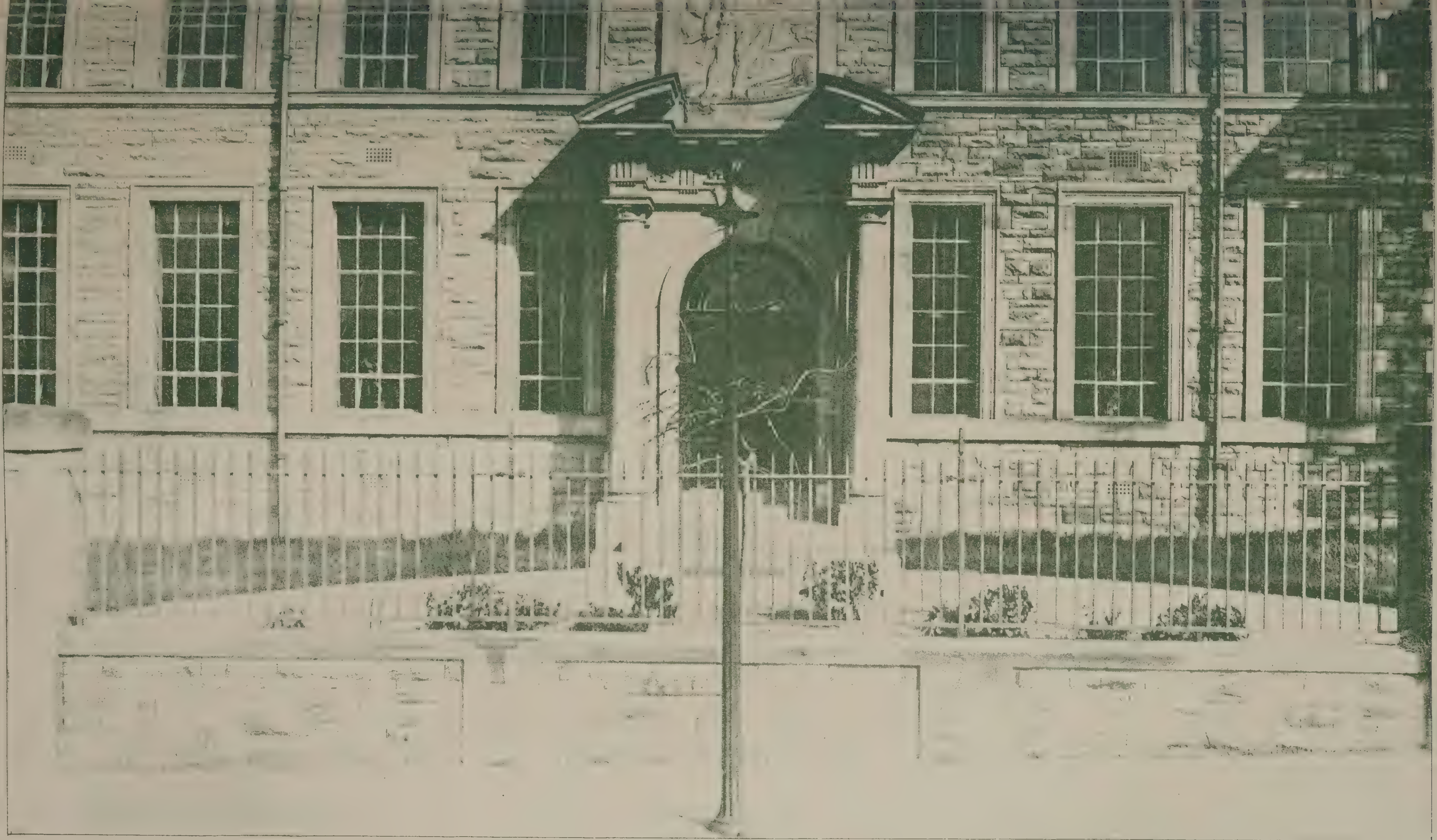

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DALZIEL HIGH SCHOOL, MOTHERWELL. PRINCIPAL ENTRANCE.

S. BRIDGMAN RUSSELL, Architect.

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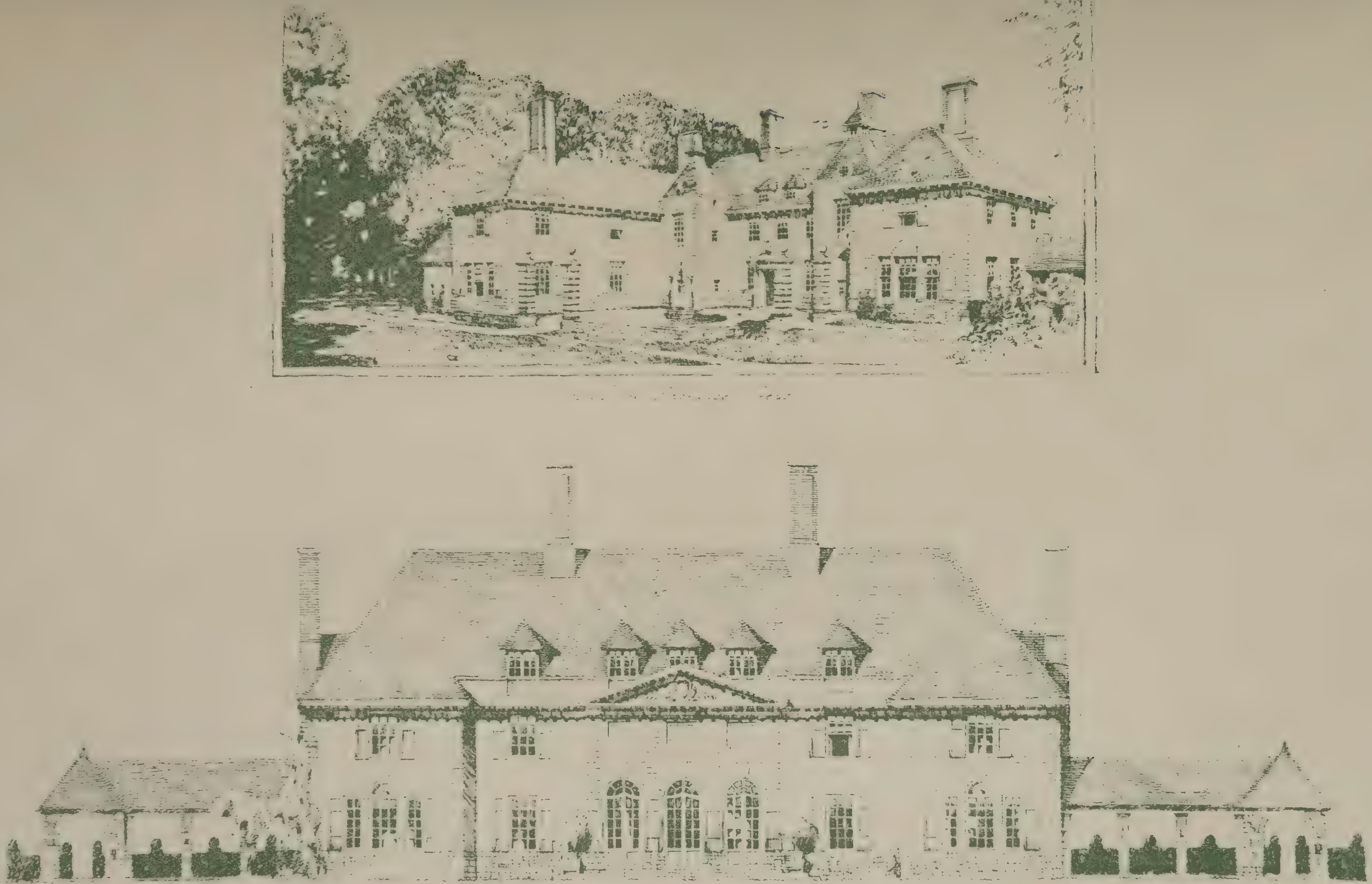

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NEW CHATEAU OF ELVADINGHE, BELGIUM.

A. B. LLEWELYN ROBERTS, Architect (Messrs. COLLCUTT & HAMP).

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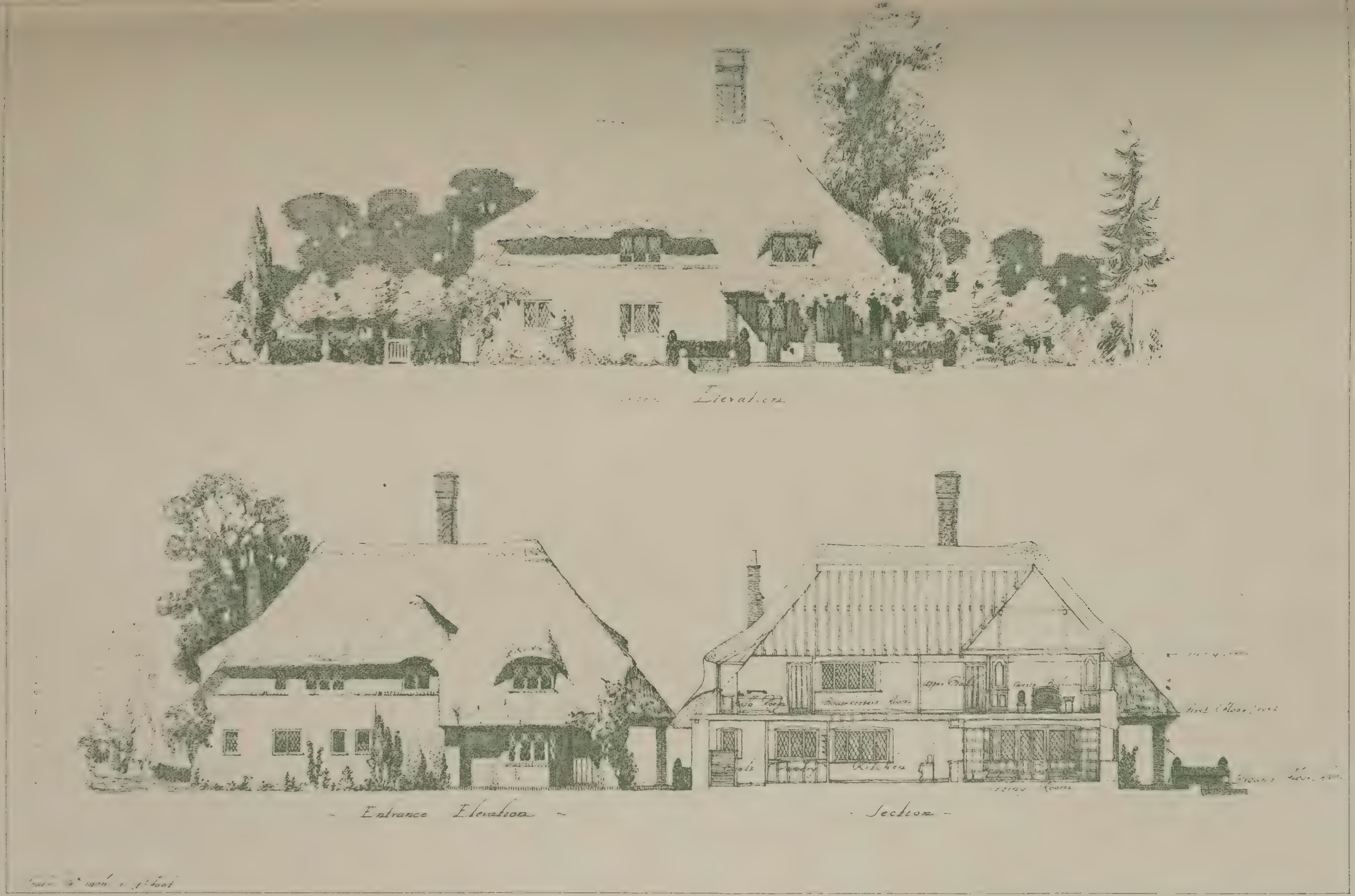

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PROPOSED COTTAGE AT BEACONSFIELD.

A. B. LLEWELYN ROBERTS, Architect (Messrs. COLLCUTT & HAMP)

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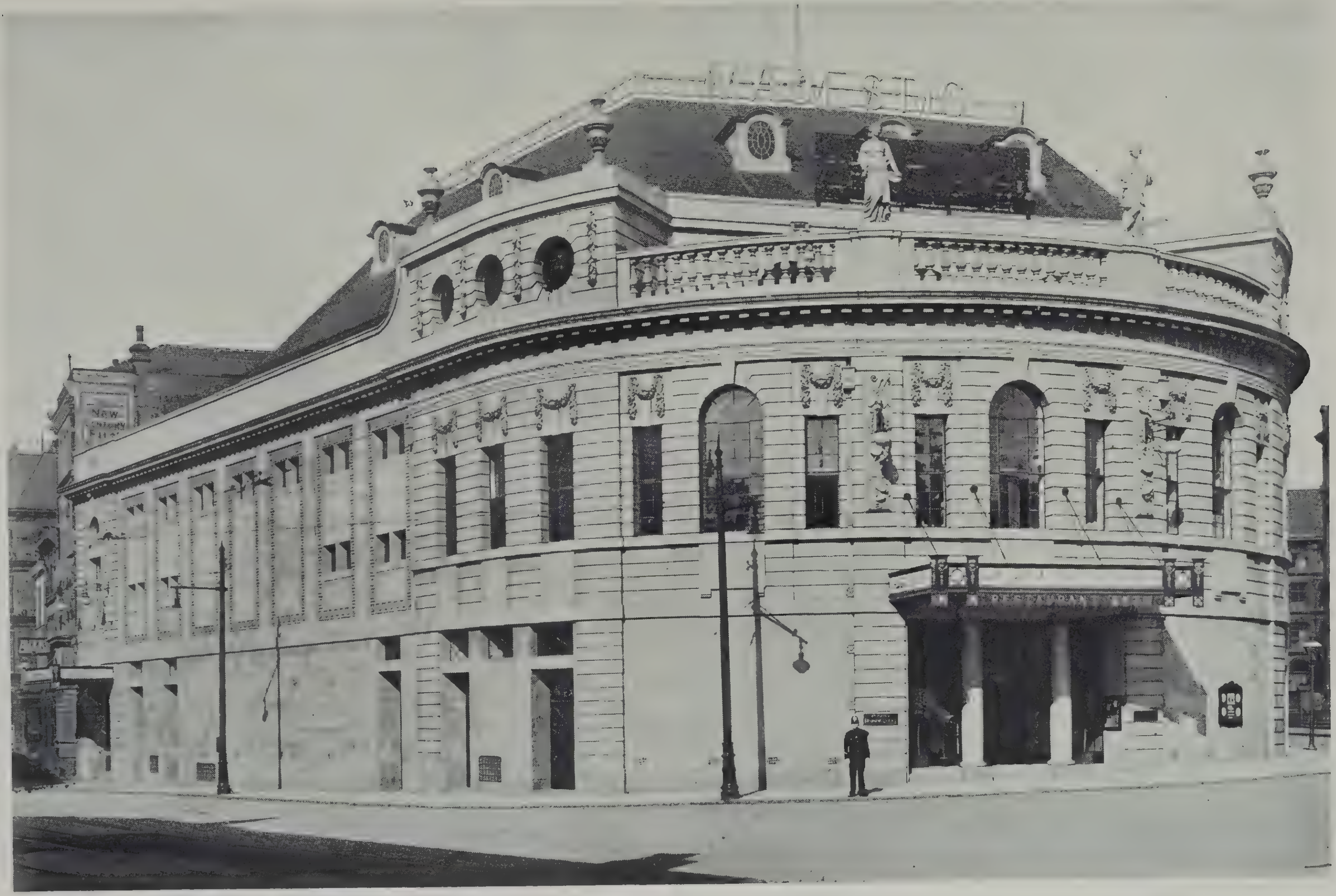
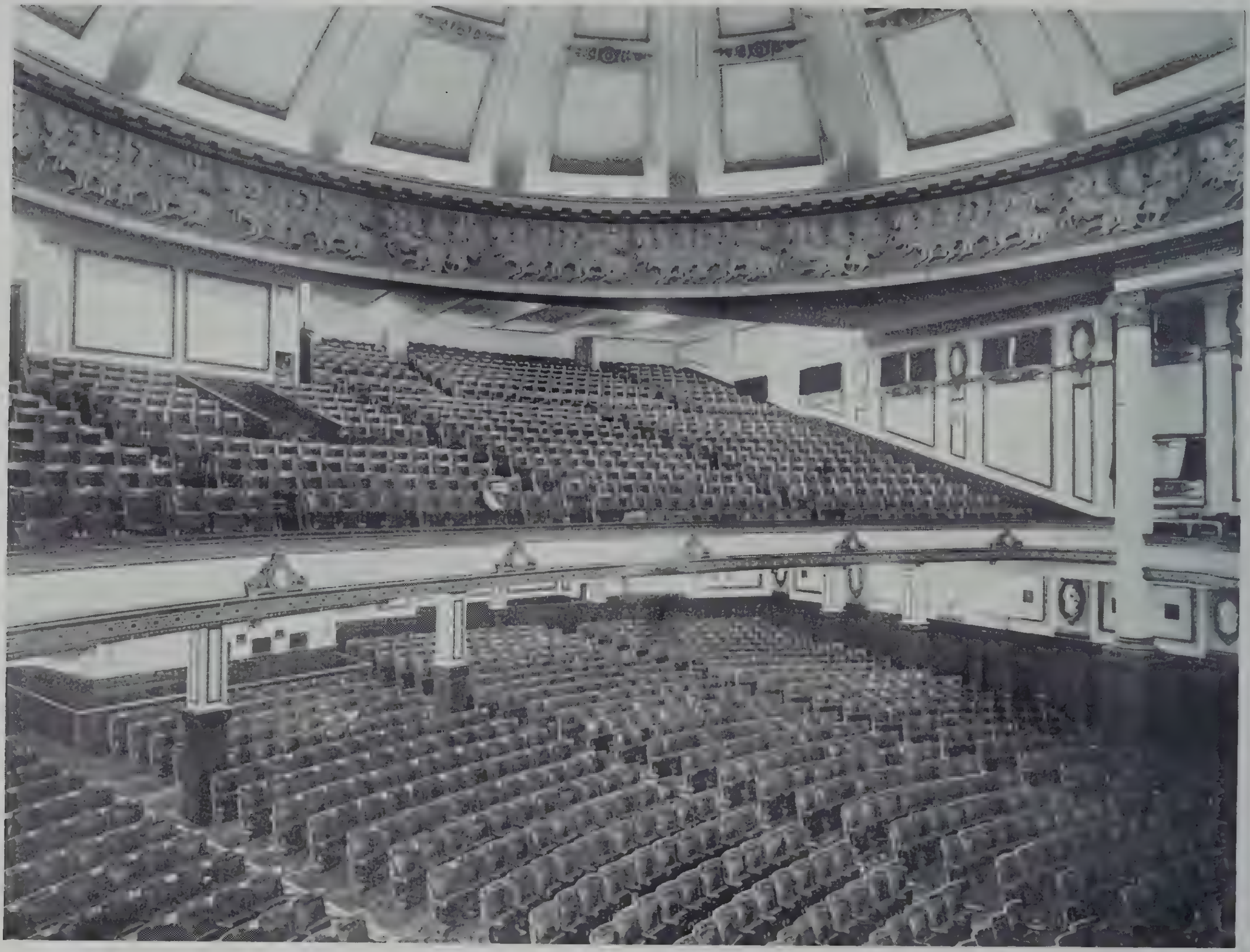
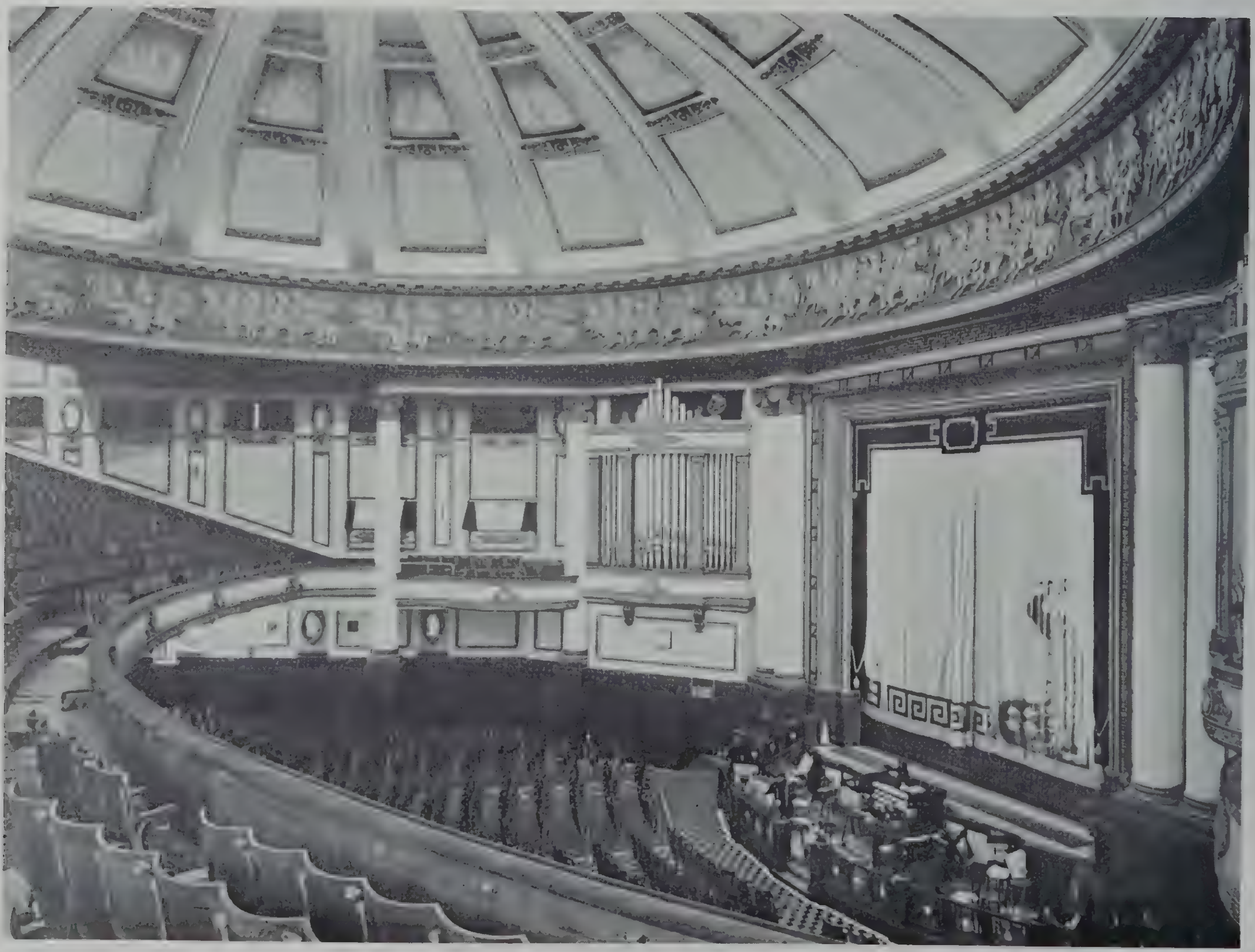


THE MAJESTIC CINEMA THEATRE, LEEDS.

P. J. STIENLET & MAXWELL, ARCHITECTS.



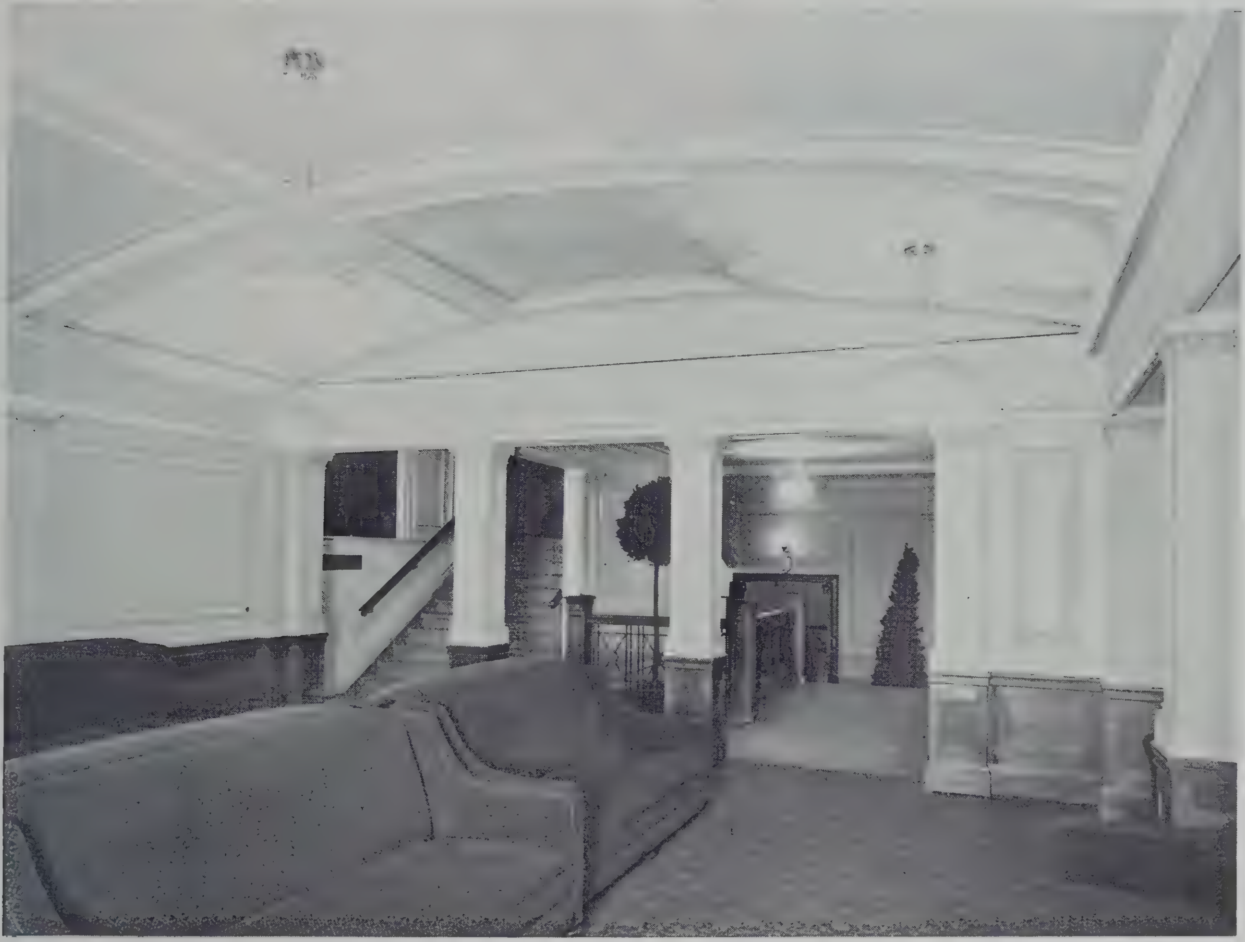
LOOKING TOWARD GALLERY



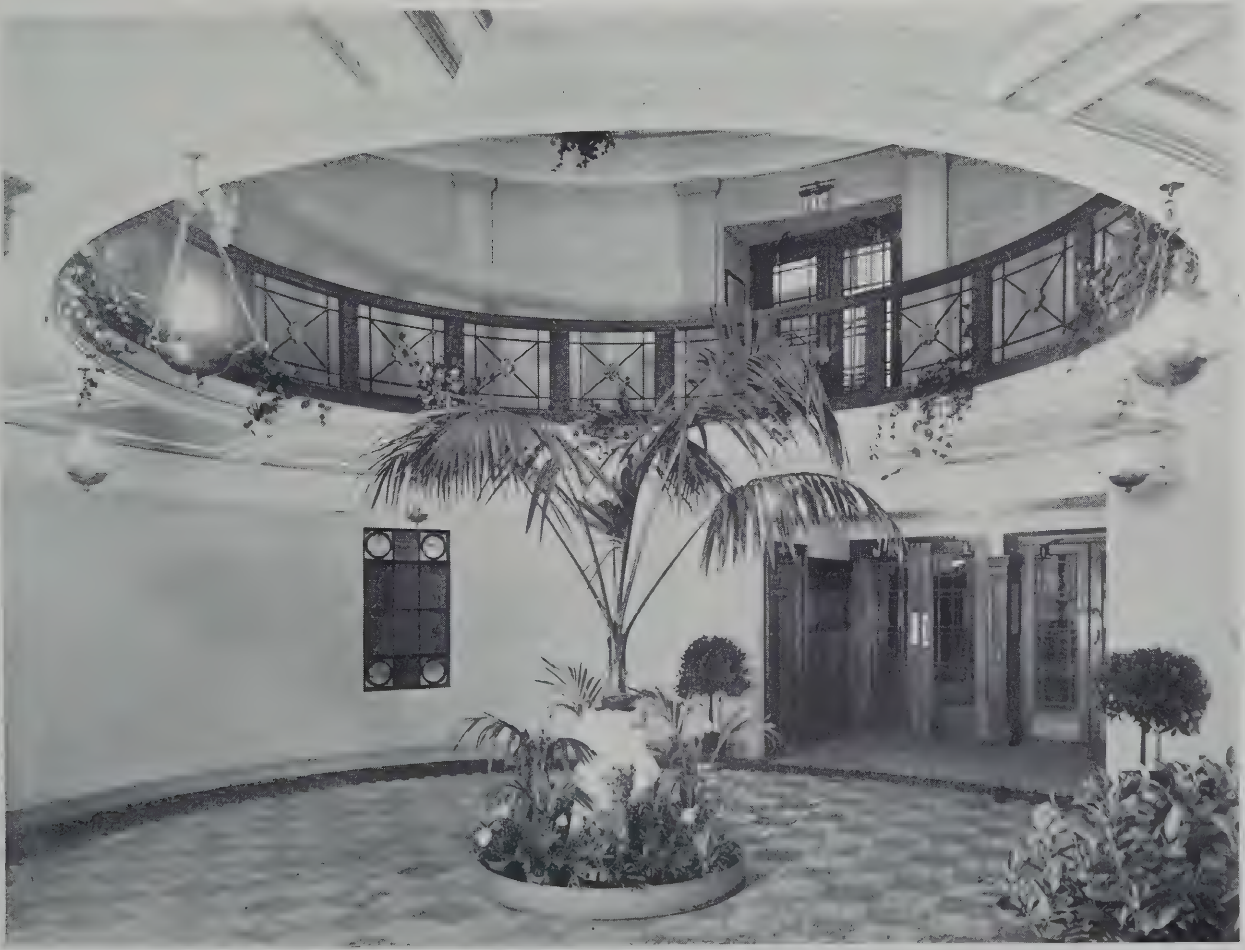
FROM GALLERY LOOKING TOWARDS THE STAGE.

THE MAJESTI

P. J. STIEN



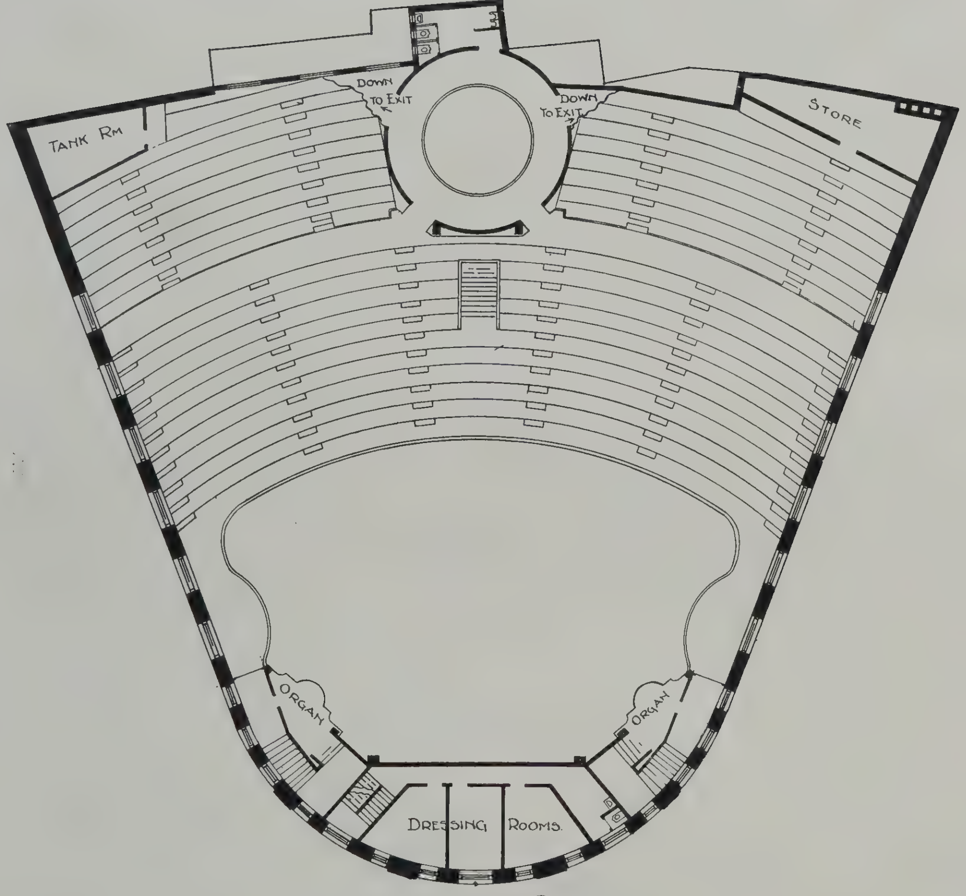
WAITING ROOM.



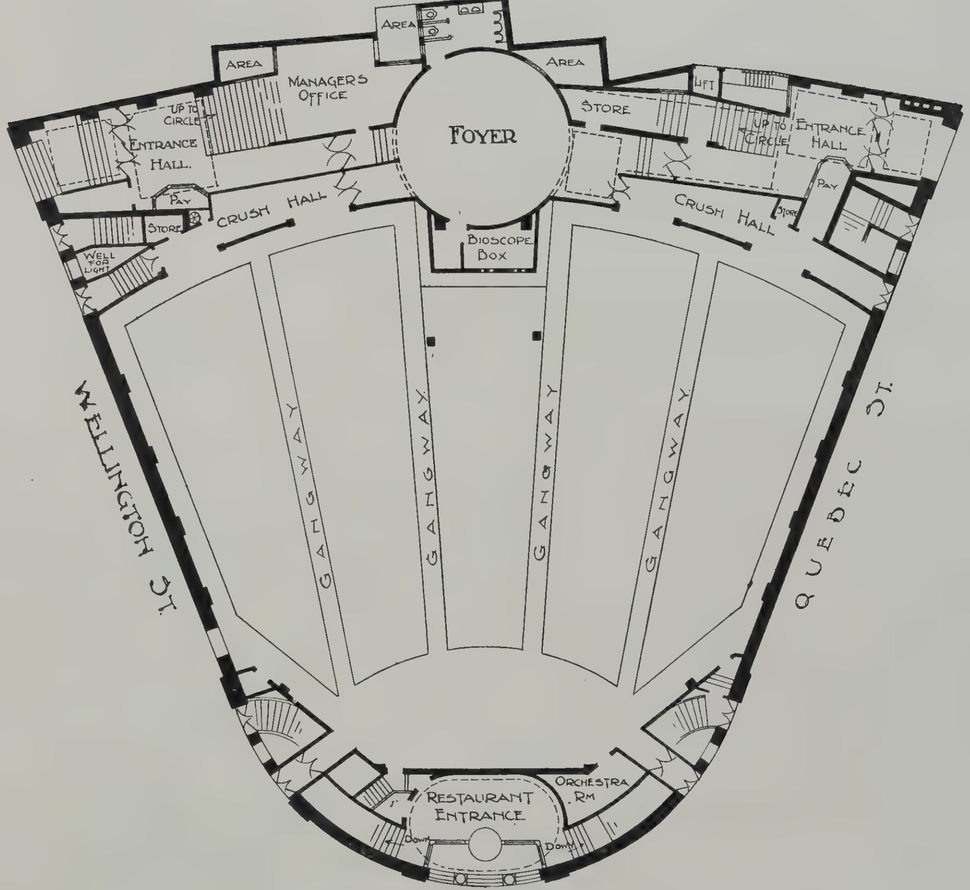
ROTUNDA.

ATRE, LEEDS.

ARCHITECTS.



CIRCLE PLAN.

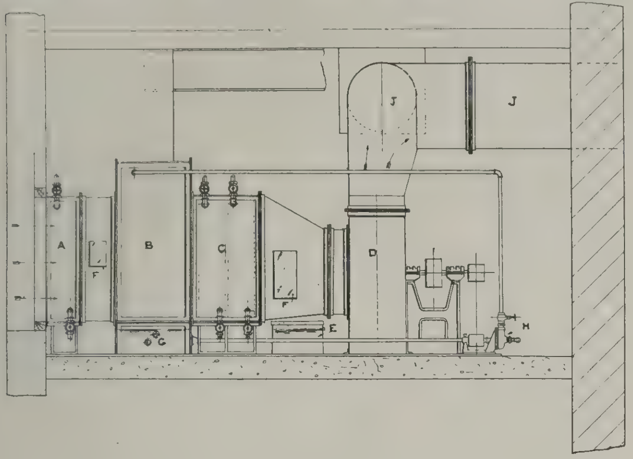


PARTERRE PLAN.

THE MAJESTIC CINEMA THEATRE, LEEDS.

P. J. STIENLET & MAXWELL, ARCHITECTS.

pump "P." The air in passing through these screens is thoroughly filtered of solid and soluble gaseous impurities, and passes forward through the moisture eliminators "K" into the main heater "H2," which raises the air to such a temperature that the building is maintained in a comfortable condition. By regulating the steam supply to the heaters "H1" and "H2" and the coil "A" the temperature and the condition of humidity, which is equally important, are under complete control. With the heaters shut off the air is cooled in passing through the machine, 10° to 15° F. in summer. The air, leaving the fan "C," passes through a carefully designed system of distributing ducting such that every part of the building receives an adequate supply. The basement restaurant is supplied by copper outlet grids in the walls, and also on false faces of the centre columns. The foul air is extracted at the false ceilings through a separate system of ducting embodying fans. The main cinema hall is supplied by grids in the panelling of the side walls and pillars at the back of the hall, and also by floor grids. The balcony is served by grids let into the risers of the steps in each gangway, and also by expanded metal grids let into the shelf of the dado on the side walls. The main extraction fans, mounted above the main dome, gather the air from portions of the rim of this through gaps, and so divert smoke from the rays of the projector. Separate fans exhaust the foul air from the main hall immediately under the gallery.



Colour in Our Shops.

By R. A. Wilson, A.R.C.A. (Lond.)

We live in a grey, colourless climate, so let us compensate ourselves by having colour artificially. In warm, sunny climates the light illuminates and reflects from objects and all things, causing colour to abound everywhere, whereas in England the illuminated signs, poster hoardings, and omnibuses stand first as a relief because of their vivid colouring alone. The coloured lights at night advertising so many well-known commodities are a joy and a delight to the eye as abstract colour, and coloured objects and wearing apparel seen in shop windows help to cheer one up and appease that craving for warmth and colour for which many of us feel we hunger almost in vain.

Our shops themselves are dingy and not in keeping with the commodity offered for sale. It is true that there is a coloured shop in Oxford Street, and many of our butchers have vermilion premises, and the banks black and gold, but crude green and brown oxide are chiefly resorted to because they are cheap. Why be so stereotyped when there are myriads of colour tones, normals and tints to use singly or in combination?

Artists and colourists might begin a crusade to turn London into a perpetual rainbow. Thinking people are getting colour more and more into their homes; they realise its power and beneficial psychological value; but it should be made accessible to all alike, whether educated or uneducated, rich or poor.

Beginning with the twelve principal colours alone—red, red-orange, orange, yellow-orange, yellow, yellow-green, green, blue-green, blue, blue-violet, violet, and red-violet—we could achieve much by their use in various ways and combinations. They could be used in pairs or triads according to the commodity sold by the shop or produce carried by the cart or van (these, too, should be included), and their combined effects could be enhanced or made more expressive by additions of black, grey, white, or gold-leaf. A few sample ideas will make clear what is meant; of course, things with a traditional colour meaning, like the barber's pole, will remain, along with one or two other things, shops and people, such as the red butchers', the scarlet Chelsea pensioner, the black sweep and clergyman, the white baker, and the multi-coloured and exceptional art student.

1. The fruiterer. Bright greens, oranges and yellow, with small doses of red.
2. The chemist and druggist may augment the idea embodied in his display of red, green and blue liquids in large bottles, and spread it further on the outside of his shop.
3. The oil and colourman and the paint and varnish manufacturer could run rampant, and use all the colours of the spectrum.
4. The undertaker. One cannot imagine a pink or cherry-coloured undertaker.
5. The hairdresser and tinter may be garbed in autumn tints: browns, oranges, old gold and yellow, even reaching to reddish-purple in range.
6. The baker and confectioner could not improve his toasted-scone brown and biscuit colour heightened by white, and the bank its black and gold, although the latter smacks a little of some finger-print department or detective agency.
7. The public-houses are a disgrace, stodgy, heavy and uninviting. Perhaps this tempts visitors to get quickly to a state of not being able to notice it, because the interiors are as bad as the exteriors—always the same dull graining and marbling, or brown, green or black.

We want some bright oranges and yellows with black mouldings and bands, or black relieved by spectrum bands or patterns of colour. Inside we are tired of those dull heavy mirrors which cover the walls, displaying their mechanically lettered advertisements. Why not substitute the idea begun by one or two restaurants of large colour decorations in panels, and a picture exhibition from time to time? The whole standard would be raised, and the place would become more of a real "public" house.

A warm French grey would be very effective for a ladies' tailor, and yellow and white with blue, or pure blue alone with white, would draw attention to the *chic* modistes.

Our little tea and luncheon shops are most satisfying from the colour point of view. Their signs and general exteriors attract and invite, and their interiors are hung with bright curtains, lampshades and decorations, and one or two are now having "one man" shows of pictures which to some customers are very satisfying for the eye to delight in during the silences.

One could continue *ad infinitum*, but the foregoing will perhaps be enough to point a step in a better direction. Think of the possibilities in Bond Street, and how it could be transformed into a fitting background for the handsome and gorgeously arrayed people to be seen walking there.

Beginning with the shops, the idea would spread and permeate everything, and we should reach a point where every existing man-made thing seen or used had its appropriate colour expressing its purpose; it could, indeed, be one of the material commonsense starting-places from which to try to make order out of chaos, and help to restore harmony in the world.

[There must always be diversity of opinion, but we are in absolute disagreement with the views here expressed.—Ed.]

Royal Academy

Winter Exhibition of Decorative Arts.

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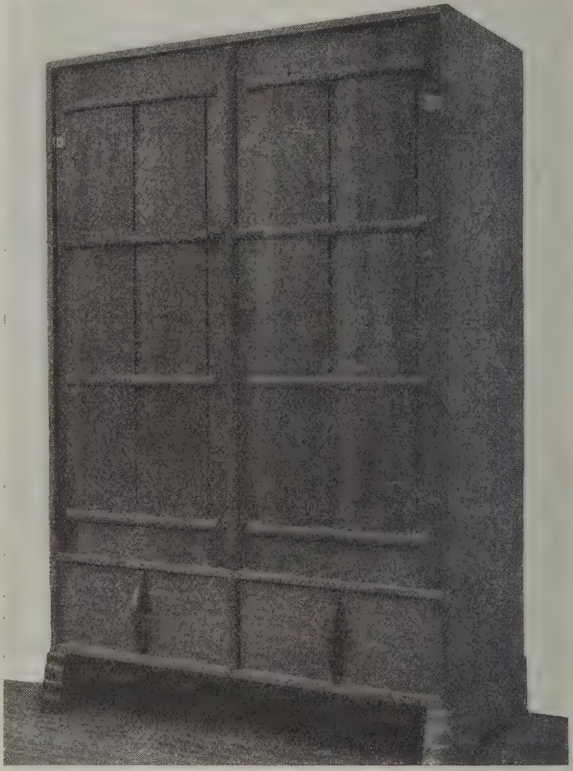
The idea of devoting the forty-eighth winter exhibition of the Royal Academy to a big show of decorative art was an admirable one, and has been carried out on the whole in a worthy and adequate manner. The question of what precisely constitutes decorative art is a difficult point of æsthetics, and even in the present display some of the works would quite well stand on their own as paintings apart from decoration; but the objects exactly put forward by our Academy in this exhibition are "to draw attention to the important part which the arts of Painting and Sculpture should take in architectural schemes . . . and to suggest to younger artists and students the great possibilities of Decorative Art, whether adornment be the sole end, or sought as an expression of certain ideas which have a general and abiding interest."

From the point of view of the latter of the two objects—the suggestion of the possibilities in Decorative Art—the inclusion in this exhibition of a room devoted to the genius in decoration of Alfred Stevens was excellent, though, as has been well remarked, the presence of these wonderful designs "makes everything else in the galleries shrivel." And the fact of their incompleteness does not in any way affect this result—here a limb, here a head, there a coloured cartoon, or a hasty chalk drawing seized and nailed down as an impression. These studies, which fill Gallery V., were the designs made by the artist during the years between 1858 and 1862 for the decoration of the dining room of Dorchester House, a work which—to our loss and that of the world's art—was never completed. They were purchased by the President and Council of the Academy under the terms of the Chantrey Bequest, but the five architectural designs shown here, lent to the exhibition by Sir George Holford, being designs for wall arrangement or for a fireplace, wall-panels and doorway, executed in pen pencil and wash, were not part of the purchase just mentioned. To be noted is the fine study in red chalk for a figure for a fountain; and, again, the study, also in red chalk, for a seated boy: these chalk drawings, in their spontaneous force and inspiration, recall some of those by Raphael for the wall-paintings of the Villa Farnesina.

Next to this fascinating room I should consider the most important features of the exhibition as the Arts and Crafts, mainly in Galleries VIII. to XI., and the mural decorations, which occupy very largely the first seven Galleries, in which the sculpture, though represented by some good work, takes a relatively minor part. In this last branch of art Mr. Derwent Wood comes forward and is well represented by numerous figures, among which are to be specially noted his "Diana" and "Juno," niche figures in bronze, his garden group of "Abundance," and his working model for a mantelpiece in Fifth Avenue, No. 1067, and admirable "Portion of Bronze Gates" for the same house in New York. Mr. Gilbert Bayes has some original work in coloured wood and a lectern in bronze and enamel for the Chapel Royal of the Savoy.

I come now to the mural decoration, which is a very important feature of this exhibition, though this is a side of art in which, in my opinion, we are at present behind America, who in recent years has been using this feature with success as part of the decorative scheme of her State capitols. But there is abundance of work in this line at Burlington House, some of it poor, but some of high quality. Among these last I should include the large decorative piece called "Crafts," filling the end of Gallery III., by Charles Sims, R.A., which appeared in the Arts and Crafts Exhibition of 1916, and the working "cartoons" by George Clausen, R.A., in the same room. Very broadly treated, these are admirable in design, good examples being the two panels of "Morning," showing figures engaged in weaving, milking, and spade work, and the cartoon of "The Golden Age," in which one of the figures recalls this artist's delightful creation of "Primavera." Next to these I should mention Ethel Walker's numerous decorative studies here in oil colour, especially the charming "Excursion of Nausicaa," which I have once before commended, and "The Zone of Hate," a decoration for a war memorial; and, as standing apart, Glyn Philpot's remarkable "Decoration for an Altar of the Sacred Heart."

As decoration there is much to admire in this, notably the scheme of colour with the green panels, imitating marble, in painted relief, the grey background, and even the pink note of the central figure as part of the colour harmony: what spoils a good composition is the central figure itself, the drapery wooden and giving no suggestion of the under form, the face lacking beauty of type, or spirituality. One gets the impression that the artist, though aiming high, has just missed what might have proved the success of the exhibition. Among other mural decorations must be noted those of Mr. Moira, Mr. Footet, Mr. Goetze (staircase design for H.M. Foreign Office), Mr. W. G. de Glehn, Mr. Connard, and Henry Holiday's cartoons for memorial windows. Original in subject and treatment are E. B. G. Shiffner's "Wrestling on Horseback" and Ernest Board's memorial design for college chapel of "The Rider on the White Horse and Heavenly Armies."



WARDROBE OF ENGLISH OAK. By Peter Waals.

I wish now to devote some attention to the Arts and Crafts, because I consider this as one of the most successful and convincing sides of this exhibition. Especially some of the modern furniture is a revelation as to what we can still do in good furniture design: we owe this, perhaps, still in part to the impulse created by William Morris, whose daughter, May Morris, appears here with tapestry panels and embroidery; but the tradition has been carried forward by the late Ernest W. Gimson, who is fully represented here in the Architectural Room, and among living craftsmen by Sir Robert Lorimer (a circular dining table in oak, extending dining table, with an original note of design in the carved legs extending outwards, and tray-top table of walnut, and others) and Mr. P. Waals, with a wardrobe of English walnut, simple but fine in design, the ornament kept well in hand, and a wardrobe of English oak. Among craftsmen who have gone, but whose work appears here, are the late Allan Vigers in his exquisite book decoration, and that fine worker, whom I had the privilege of knowing personally, the late William de Morgan, whose tiles and lustre ware (bowl in Persian colours and others) are still unsurpassed.

S. B.

Royal Institute of British Architects.

The sixth general meeting (ordinary) of the session was held on Monday, January 22, at 9 Conduit Street, W., Mr. Paul Waterhouse, M.A., F.S.A., president, in the chair.

A letter was read from Sir Edwin Cooper acknowledging a vote of congratulation on his recent knighthood.

Mr. Arthur Keen, the hon. secretary, announced the decease of the following members: Mr. John Bennie Wilson, elected Associate 1882, Fellow 1910 (President of the Glasgow Institute of Architects in 1910 and represented that body on the R.I.B.A. Council during the Session 1910–11); Mr. Charles Glynn Evans, Associate 1912, Fellow 1921; Mr. G. C. Fleming, Licentiate 1911, and Mr. Percy Walker, Licentiate 1910. A message of condolence and sympathy will be conveyed to their relatives.

A paper, of which we here give a condensed report, by Mr. Ralph Knott, F.R.I.B.A., and W. E. Riley, F.R.I.B.A., R.B.A., was read on the subject of

The New London County Hall.

The L.C.C., many years ago, considered the suitability of various sites for the building of a new County Hall that would accommodate representatives and official staff in a suitable way. Sites were considered in Parliament Street, Trafalgar Square and the Adelphi, all eventually abandoned in favour of one adjacent to the Thames and the southern approach to Westminster Bridge—where, in fact, the new building now stands. This site was acquired in April, 1905, at an approximate cost of £600,000, and as its area—including 2½ acres of reclaimed foreshore—was about 6½ acres, such cost works out at a figure approaching £100,000 an acre, a relatively cheap price as compared with the cost of other sites considered, which would have worked out at nearly £350,000 an acre for the Parliament Street site, over £400,000 an acre for the Trafalgar Square site, and £270,000 an acre for the Adelphi site.

A good deal of credit attaches to Mr. J. D. Gilbert (an old member of the Council) for the acquisition of the river site, for as far back as the year 1898 he advocated—as a part of his proposal for a southern river embankment between Westminster and Blackfriars Bridges—the erection of a new County Hall and offices on land that would become surplus from such an improvement if carried out. It is much to be hoped that the further section of a southern embankment that has now been formed in front of the County Hall may definitely be continued up to the City.

A site having been acquired, steps were taken to hold, in the following year, an international competition for designs for the new building, and advice was given by the R.I.B.A. in this connection. The proposal was to have a competition in two stages, the first being an entirely open one from which ten designs would be selected, and at the final stage eight other leading architects would also be invited to submit designs. Mr. Norman Shaw and Mr. Riley, the Council's official architect, were to act as assessors in the first stage of the competition, and subsequently a third assessor should be selected by those competing in the final stage. The Council decided to hold the competition upon this basis, and that not less than ten or more than fifteen designs should be selected by the assessors in the preliminary stage, and that all competitors in the final stage should receive a fee of 200 guineas. The conditions were accordingly drawn up. One of these conditions—considered desirable in the Council's interests—was that Mr. Riley should be eventually associated with the selected architect, in order that he might deal with aspects of the problem necessary to secure such a building as the Council required, and watch the economic side of the problem.

In the preliminary stage of the competition there were sent in 99 designs, the work of 152 architects; eight of these architects were of foreign birth.

The competition designs in the final stage were received in January, 1908—Sir Aston Webb having in the meantime been selected by a majority of the final group of competitors as the third assessor—at the end of which month the assessors' award was declared showing that Mr. Ralph Knott was the author of the successful design, which was described as being a forcible and artistic suggestion which conveyed the purpose for which it was to be erected; that it was almost entirely without costly and unnecessary features; and the approval of which was made subject to various modifications, including the modification of the great central projection of the central portion of the river front, and that, as suggested by Mr. Knott himself, the large flight of steps into the river beyond the embankment be omitted.

Mr. Knott's design was accordingly accepted. It was subsequently modified on the lines suggested by the assessors, a slightly projecting segmental bay and flights of steps parallel to the embankment being substituted for the large projecting flight of steps. The design was further modified by the omission of a cross colonnade in the central portion of the river frontage, the "order" being carried round the crescent.

The Council based its calculations for accommodation on its existing duties, making such allowance as seemed reasonable for extra requirements when the services and the county should be fully developed.

It was only in the accommodation for the use of members that an attempt was made to anticipate possible legislation, and provision was, therefore, made for an increase in the number of members up to about 200. If a council chamber were provided for 137 only—which was the number of members at the time it was decided to proceed with the erection of the new County Hall—it would be extremely difficult to enlarge it afterwards; a similar argument applies in a less degree to all rooms for the common use of members, while any superfluous rooms can always be turned to good use for the accommodation of the staff.

In order to fix a reasonable standard of accommodation, much attention was paid to the amount of floor space which should be allowed for officials of the various classes, and with this object several large blocks of modern offices, both public and commercial, were inspected. Although the standard varies slightly in the different departments, the undermentioned approximate areas generally obtain:—

	Square feet
Heads of departments	400
Chief assistants	250
Heads of sections	150
Draughtsmen	120
Clerks engaged on committee work and clerks dealing with plans	100
Ordinary clerks	80
Typists and assistants engaged on routine work ..	50

Another question which the Council had to consider was whether a completed building should be erected on the portion of the new site excluding Messrs. Holloway's premises, or whether so much of Mr. Knott's whole design, with any necessary modifications, as would extend from Westminster Bridge to those premises should be erected. Accommodation was required for a minimum of 137 members and a staff of 2,100. On the site—less Messrs. Holloway's premises—accommodation could be provided for 200 members and a staff of 2,270, and on the whole site for 200 members and a staff of 2,850. The Council was advised that not less than seven years would elapse before the whole of the staff could be housed in the new building. By that time the Council would be in a position to take over Messrs. Holloway's premises if it so desired, and the Council would have the choice—according as the experience gained in the construction of the new building and the variation in its work dictated—either of holding its hand or of proceeding with the building on the rest of the site. It was accordingly decided to proceed with so much of Mr. Knott's scheme as related to the portion of the site excluding Messrs. Holloway's premises.

Tenders were invited from selected firms for the construction of the embankment wall, and the lowest, which was submitted by Messrs. Price & Reeves, was accepted. The engineering work was designed by and executed under the supervision of the Council's chief engineer, Mr. (now Sir) Maurice Fitzmaurice, C.M.G. The architectural features of the central part of the wall were designed by the architects.

The wall is founded on the clay underlying the ballast which extends all through the Thames valley. Consequently in sinking for the foundations the whole of the bed of ballast had to be traversed, together with the Thames mud overlying it. A solid and watertight foundation has thereby been rendered possible. The foundations were taken down to 35½ feet below Trinity high-water mark.

The construction of the wall was started in January, 1909, and completed in September, 1910. The total cost amounted to £58,000.

The northern extension of the river wall (in front of Messrs. Holloway's premises), forming the remaining one-third of the length, and a return wall sealing up the northern end of the site were built inside a dam composed of steel sheeting strutted with timber. The contract was let just before the commencement of the war, and, owing to the necessity for protecting the site from inundation, work was allowed to proceed until its completion in May, 1917.

As a result of trial borings it was ascertained that the subsoil consisted approximately of 12 feet of made ground, 7 feet of Thames mud, and 13 feet of ballast, under which occurs the London clay. The foundation for the new building has been formed with a "raft" of Portland cement concrete on the top of the ballast stratum. It was decided to adopt a thickness of 5 feet throughout for the raft, and it is laid directly on the ballast bed, which is found at a level of −8 O.D. This course was adopted in order to save time and to progress the work, the drawings for which were not then matured, and this construction had the advantage of being sufficiently stable to carry any loads which it might be required to place upon it.

Owing to the depth of this foundation below the roadway (about 23 feet), retaining walls were necessary on the south and east sides of the site, formed of concrete and varying in thickness from 10 feet at the base to 4 feet at the top. Tenders for the work were invited from selected firms. The lowest, amounting to £46,900, was submitted by Messrs. F. and H. F. Higgs, and was accepted. Their contract was completed in the autumn of 1911.

As soon as practicable, arrangements were made for the construction of the substructure of the new building—viz., from the top of the concrete raft to the ground-floor level, a height of 24 feet 6 inches. Tenders were invited from selected firms, and the lowest, amounting to £47,738, which was submitted by Messrs. Chas. Wall, Ltd., was accepted. For convenience of construction, the building was divided into three sections—A, central; B, southern; C, northern. The tender comprised the construction of the substructure of the first section, A, and the completion of the raft foundation work and retaining wall in Belvedere Road to the north of Guildford Street. The Council decided, in accordance with the conditions of tender, to require Messrs. Wall to construct the ramaining two sections, B and C, at the schedule of prices included in the original contract. Messrs. Wall's contract was completed in March, 1913.

The plan adopted for the building embodies various features that were subsequently considered desirable to produce a satisfactory arrangement of plan, including the straightening up of the old irregular Belvedere Road frontage to a new improvement line. As now planned, the council chamber forms the centre of the building, being placed at the intersection of the longitudinal and two transverse axes, the latter being at right angles to the river and Belvedere Road fronts respectively. The cross blocks are placed at right angles to the longitudinal axis, which, as it happens, is practically due north and south, and in all blocks direct natural lighting is provided to both the rooms and corridors. The members' courtyard, with entrance drive from Westminster Bridge approach, is an interesting feature of the plan. By its means members of the Council are brought in direct touch with their own apartments in the building, centring around the council chamber.

Another means of access to the members' portion of the building, intended primarily for ceremonial purposes, is from the large entrance hall (85 feet by 32 feet) in the centre of the Belvedere Road front, at the ground-floor level, from which a wide straight staircase leads up to the eastern lobby of the chamber.

On completion of the substructure, the main contract for the superstructure commenced in August of 1913, and was timed to be completed in three years, the contractors being Messrs. Holland and Hannen and Cubitts, Ltd., of Gray's Inn Road. Work was stopped owing to the war and only resumed in the summer of 1919.

The walling generally is of London stock bricks, strengthened where unusual loads are encountered with blue brickwork in cement. Floor and flat roofs generally are of the usual steel joist and concrete construction. The structural work includes built-up steel stanchions where required by the planning of the building; and the steel framing for the roof, which includes two floors of offices, has required special treatment, owing to its somewhat unusual form and the heavy loads to be carried.

During the earlier stages of the design, careful consideration was given to the question of the extent to which steel should be employed in the building, and the comparative advantages of reinforced concrete and ordinary steel joist construction were investigated. It was seen that the massive character of the piers and walls, required to give effect to the architectural design, rendered unnecessary the general use of steel stanchions or of anything in the nature of a steel framework.

The investigations were, therefore, made chiefly with the object of ascertaining the most suitable construction for the floors and roofs, and, as a result, it was decided to use steel girders and joists cased in concrete and designed in accordance with the requirements of the 1909 Act.

Provision was made for the following superimposed loads :—

	Lbs. per sq. ft.
Office floors generally	100
Basement floors (for storage purposes)	224
Loft floors	75

The maximum pressures allowed on brickwork and concrete were those permitted under the 1909 Act already referred to.

As an exception to the general rule, stanchions and girders of heavy construction are to be found in Block 2, where the large committee room and offices on the upper floors are supported over the boiler-house.

Probably the most interesting features in the steelwork occur in the floor of the council chamber, in the roof, and in the construction of the fleche.

The approximate weight of steel used in the structure is 8,000 tons.

The style of the building may be described as of the severe phase of English Renaissance, interpreted in a modern spirit, with a considerable measure of freedom. The external frontages have a granite-faced substructure, above which they are faced with best Whitbed Portland stone, and the internal lighting areas with either white-glazed or Arlesley bricks.

The crescent of the river front has been dealt with as the dominating external feature of the building. It consists of the Ionic order embracing four storeys, columns over 40 feet in height, and bold, sweeping, horizontal lines. The connecting chord across its terminating pavilions encloses the members' terrace, raised well above and disconnected from the new embankment road passing in front of it, and a few feet lower than the principal or members' floor itself. The height of the main floor of the building is 16 feet, while the office floors have an average height of 11 feet 6 inches to 12 feet, floor to floor.

The rectangular members' courtyard and its approach from Westminster Bridge front have already been referred to. The heavily treated, stone vaulted carriage way, with its granite base, has been rendered as one of the very important features of the building. Entering it from the public roadway, the vista terminates in the members' entrance doorway, finished with a semicircular arched head, and flanked on either side by pedestals with bronze lamps. The façades of the four blocks of building giving on to the courtyard are treated similarly to the external fronts—Portland stone facings on a granite substructure, and steep-pitched roof with two stages of dormer windows.

While on this aspect of the building, attention may be drawn to a treatment of roof unusual in this country, the prominence of which is emphasised by the Italian roofing tiles, of rich red colour. The dormer windows are lined with sheet copper, as is also the fleche, the central feature of the crescent roof.

The height of the main cornice of the building is, roughly, 90 feet above the foundation, the ridge of roof 130 feet, and the top of the fleche 190 feet. The structure embraces nine storeys, the two lowermost being the basement and sub-basement, devoted more particularly to storage purposes. Exclusive of these, and with the further exception of the first floor allotted to members and heads of departments, practically the whole of the building is required for the accommodation of the Council's office staff. The rooms for the latter are treated in a severely simple way, and, indeed, extraneous or unnecessary ornament is generally avoided in the treatment of the building.

The question of the best system for heating the building generally was fully investigated by the architects over twelve years ago, with the result that a circulation of hot water through radiators was decided upon. The labour involved in the use of open fires for a building of such magnitude prohibited their general adoption, and only in exceptional cases have fires been permitted. The principal factors which led to a decision in favour of hot water rather than steam radiation were the comparatively low temperature of the radiating surfaces and the extreme flexibility of the system, permitting as it does of the heating medium being varied in temperature from 100° F. to 180° F., as required, to meet the outdoor conditions. Hot water radiators will therefore be found in nearly every room, and, wherever practicable, they are provided with a fresh-air inlet of special design. Unlike most so-called fresh-air inlets, these can be readily cleaned and can be controlled by the occupants of the rooms, who can see at a glance whether the inlets are open or shut.

Natural circulation by gravity being out of the question, a central pumping plant has been installed. Two electrically driven pumps capable of performing the whole duty have been provided, and there are two similar pumps driven by steam engines. The latter can be used when a failure in the supply of current occurs or when the exhaust steam can be economically used for heating the water supplied to lavatories.

In most of the rooms extract gratings for ventilation will be found near the ceiling on the side adjacent to the corridor. These gratings permit of the passage of air to ducts formed above the false ceilings of the corridors. These ducts are connected to vertical air shafts, of which there are ten, and effective natural ventilation will take place up these vertical shafts. Each shaft is, however, connected with a centrifugal fan, and when the conditions require it mechanical extraction can be secured by intermittent running of the fans. The lavatories are provided with independent air ducts and fans, which are designed to secure an increased rate of interchange of air, so that air movement will take place from the building into lavatories. No restrictions with regard to the opening of windows are being imposed.

The installation for heating and ventilating the council chamber is one of the most interesting features in the building. A careful investigation was made with a view to ascertaining the causes of complaints which have arisen in connection with buildings such as the House of Commons and the Central Criminal Court. As a result, the opinion was formed that satisfactory conditions could be expected if the scheme embodied the following leading features :—

(*a*) A suitable position for the fresh air intake at a level below the smoke zone, but not low enough to be affected by dust and refuse from the streets.
(*b*) A means of maintaining a suitable standard of humidity and temperature.
(*c*) A means of maintaining a suitable temperature without overheating the incoming air.
(*d*) The adoption of a slow upward current of air in the chamber.
(*e*) An even distribution of the incoming air over the whole area of the chamber and at a low velocity.
(*f*) The extraction of a small proportion of air near the floor level for the purpose of preventing dust and impurities rising from the floor.

Vote of Thanks.

Mr. Paul Waterhouse, the president, said he was sure the audience would agree with him that Mr. Riley had exercised a rare restraint in showing the prose side of a very interesting building. He (the speaker) had been apt to regard the London County Hall as a poem.

Mr. Ralph Knott, who was called upon by the President, and received with continued applause, said the audience had had such a very exhaustive paper there was nothing left for him to say. He, as architect, had had the support of Mr. Riley all through, and also that of his partner, Mr. Collins.

Mr. Francis R. Anderton (chairman of the London County Council) in proposing a vote of thanks, first expressed his regret that Sir Aston Webb, P.R.A., had been unable, owing to illness in his family, to be present and to propose that vote. There was some fitness in the speaker doing so as he was the first chairman to preside over a meeting in the great new building, to have sat in the magnificent chair, and to have manipulated with some success the wonderful ventilation arrangements in the Council Chamber. All Londoners were proud of their County Hall, and owed a debt of gratitude to the men who had designed it and carried it out. Personally, he had taken a great many people round the building and invited them to admire its numerous beauties. Despite the hypercritical people, London, taken for all in all, was more than satisfied with its new building. Something had been said and written about the acoustic properties. It was a strange thing, but most public buildings when first used have their acoustics criticised. That certainly had happened on a previous occasion when the London County Council got into a new building and were said to be unable to hear each other. The audience might be surprised to learn that certain councillors missed the old building, and complained that the new one was not as " homely " as the old—such people must have extraordinarily uncomfortable homes. At the County Hall there was no space wasted, no unnecessary expense; nothing unworthy of London or less than London deserved. He wanted to express his deep sense of gratitude to Mr. Knott and Mr. Riley for what they had done for London, and to thank Mr. Riley, in particular, for his admirable paper.

Mr. Andrew T. Taylor, in seconding the vote of thanks, spoke of the London County Hall as a great triumph for unlimited competitions, for it brought out a young man who had had no previous experience with large buildings. The building was wonderfully suited to civic and municipal architecture. It had nothing in common with the Hotels de Ville on the Continent. The ratepayers' money had not been wasted on superfluous ornament; everything was strictly utilitarian. There was immense weight, massiveness, and strength in the building, and it would last hundreds of years.

The vote of thanks was passed by acclamation.

Mr. W. E. Riley, in returning thanks, explained that the object of giving so much tiresome detail was to put on record the true history and meaning of this gigantic building. The transactions of the Royal Institute contained nothing of the sort concerning the Houses of Parliament or the Law Courts.

The Secretary then read the results of the

R.I.B.A. Prizes and Studentships.

The Tite Prize and £100 *for Design.*—The subject set for this year was " An Italian Embassy in a European Capital." Nine designs were submitted.

The prize was awarded to Mr. John Chiene Shepherd, A.R.I.B.A., of 51 Torrington Square, London, W.C.1, and a Certificate of Honourable Mention was awarded to Miss Isabel Maud Chambers, of " The Priory," Roehampton, S.W.15.

The Owen Jones Studentship.—A Certificate and £100 for Ornament and Coloured Decoration was awarded to Mr. Cyril Forbes Filbey, of 123 Crystal Palace Road, East Dulwich, S.E.22, who submitted the only application.

The Godwin Bursary and Wimperis Bequest.—A Silver Medal and £130 for the Study of Works of Modern Architecture Abroad was awarded to Mr. William Thomas Benslyn, A.R.I.B.A., of 42 West Side, Wandsworth Common, S.W.

Six applications were received for the Godwin Bursary and Wimperis Bequest from the following: Messrs. W. T. Benslyn (A.), L. H. Bucknell (A.), S. W. Milburn (A.), W. S. Purchon (A.), E. W. B. Scott (A.) and A. F. Wickenden (A.).

The Pugin Studentship : A Silver Medal and £75.—For the Study of the Mediæval Architecture of Great Britain and Ireland. This studentship has been awarded to Mr. A. Newton Thorpe, of Cemetery Lodge, Fulford, York. An application was also received from Mr. G. W. R. Heritage.

The Henry Saxon Snell Prize and £50.—This prize has been increased on this occasion to £60 owing to the generosity of Mr. A. Saxon Snell, for the Study of the Design and Construction of Hospitals, Convalescent Homes and Asylums. " A Maternity Home and Infant Welfare Centre " for an industrial town was the design subject for this year. Eight designs were submitted.

The prize was awarded to Mr. Ernest G. Theakston, F.R.I.B.A., of 12 New Court, Lincoln's Inn, London, W.C., and Certificates of Honourable Mention were awarded to Mr. George Bertram Edward Norburn, A.R.I.B.A., of " The Crossways," Northwood, Ramsgate, and to Mr. Alfred John Brown, A.R.I.B.A., of 35 Handside Lane, Welwyn Garden City, Herts.

The Grissell Gold Medal and £50.—The subject set for this year was " A Warehouse," and the prize was awarded to Mr. Percy Morrey, M.B.E., A.R.I.B.A., of Wynhill, Bramhall, Cheshire. Four designs were submitted.

The R.I.B.A. Essay, Silver Medal and 25 *Guineas.*—This was awarded to Mr. Lionel B. Budden, M.A., A.R.I.B.A., of Withinfield, Heswall, Cheshire, for his Essay on " An Introduction to the Theory of Architecture."

Four other Essays were received under the following mottoes: (1) " Argumentum ad Judicium," The Architectural Problem of the Modern Shop; (2) " Korea," The Study of Sound in its Relation to the Design of Buildings; (3) " Petivi," The Most Genial Artist of His Time—Pirro Ligorio of Naples, Rome and Ferrara; (4) " Poffergy," Flats.

The R.I.B.A. Measured Drawings Silver Medal and £50.—This was awarded to Mr. Wesley Dougill, B.Arch., Liverpool, of " The Lees," 58 Calthorpe Road, Edgbaston, Birmingham, for his measured drawings of " The Campidoglio, Rome."

The Competition Drawings will be on exhibition in the Galleries of the Royal Institute of British Architects, 9 Conduit Street, W.1, from January 23-February 5, 1923, between the hours of 10 a.m. and 8 p.m. (Saturday 10 a.m.-5 p.m.). Admission is free.

New Premises, Leeds, for Messrs. Messrs. Austin Read, Ltd.—In our account last week of these notable premises the name of the general contractors was wrongly spelt as William Irvin & Co., Ltd., Burley Road, Leeds, instead of William win & Co., Ltd. The marble and mosaic work was executed by Messrs. Fenning & Co., Ltd., Palace Wharf, Hammersmith, W. The electric wiring was executed by Messrs. Albert Innes, 33, Queen Victoria Street, Leeds. Messrs. Henry Hope & Sons, Ltd., carried out the main top light and the lay light.

The Minister of Health has appointed a standing advisory committee, consisting of representatives of the British Water Works Association and the Institution of Water Engineers, to confer with representatives of the Ministry on questions of water supply. The first meeting of the committee was held last week, when the subjects discussed included—(1) the steps to be taken for formulating the outlines of a national water policy; (2) the survey of the water resources of England and Wales which is being made by the engineering department of the Ministry on the lines recommended by the Water Power Resources Committee in their final report; and (3) the standardisation and testing of water fittings in connection with proposals made by the British Water Works Association for revising the Ministry's model by-laws relating to the prevention of waste of water.

Correspondence.

R.I.B.A. Annual Conference, 1923.

To the Editor of THE ARCHITECT.

SIR,—The Annual Conference of the R.I.B.A. and its Allied Societies will take place in Edinburgh on June 13 to 16, 1923. The Conference will be held in conjunction with the Annual Convention of the Incorporation of Architects in Scotland, and the arrangements for the Conference have been entrusted to the Council of that body, by whose invitation Edinburgh was selected as the place of meeting. A fully detailed programme will be published at an early date, and in the meantime *it is hoped that all members will make a note of the date and endeavour to arrange their engagements so as to permit them to make the journey to Edinburgh to take part in the Conference.*

Faithfully yours,
IAN MACALISTER,
Secretary.

Royal Institute of British Architects,
9 Conduit Street, Hanover Square,
London, W.1,
January 17, 1923.

Housing.

To the Editor of the ARCHITECT.

SIR,—If the Government could bring forward a scheme whereby it could make possible and induce the working classes and others to own their houses, among the many social and economic advantages of such a scheme would be a saving in repairs, amounting in the aggregate possibly to millions per annum.

Why should not the Government encourage resident ownership by agreeing to advance, by way of mortgage, practically the whole cost, less a deposit of, say, £20, at a low rate of interest? The capital sum, repayable by means of a sinking fund, based on the 4 per cent. tables, spread over 40 years, would amount to about £5 per annum.

Take, as an example, a freehold or long leasehold house costing £500; the interest at 4 per cent. would be £20 a year, plus the sinking fund of £5, a sum which the working classes could afford to pay, *i.e.*, £25; added to which would be maintenance, repairs, and insurance, and also the rates and taxes, unless it was found possible to remit these temporarily, either wholly or in part.

A difficulty which might arise is that a man losing his work in a particular neighbourhood would be compelled to move and vacate his house. To solve this problem he might be given Housing Bonds to the value of this property at that time, and thus be able to obtain possession of another house in the required district.

Such a scheme might be worked by approved building societies, with their existing organisation and the necessary Government backing.

A long lease would probably be better than freehold, as it would be possible to enforce proper maintenance and repairs.

PERCY B. TUBBS.

10 Gray's Inn Square, W.C.

The Value of Colour.

To the Editor of THE ARCHITECT.

SIR,—Although not myself an architect, I see your excellent periodical from time to time in the house of a friend.

Yesterday we fell to discussing the paragraph in your last issue, and we both confessed to disappointment. You have not, it seems to us, grasped Mr. Hogge's real point.

It is not to be supposed that this gentleman is any more blind than we are to the "subtle colours" given out by "the varying effects of light and shade on materials the texture of which is varied." What he does appeal for apparently is some yet more distinctive play of colour. The "effect" obtained from "sand-faced brickwork and stone" we have always with us, and most people find it depressing. The desire is for something more pronounced, but not necessarily less artistic.

Nor does a re-perusal of Mr. Hogge's letter disclose any suggestion of "a conglomeration of highly-glazed materials." He does not even refer to materials "highly-glazed." That, sir, is your own gloss on his allusion to "terra cotta and vitreous brick," and to "dominating tints of blues and greens," etc.

Indeed, Mr. Hogge has been telling interviewers that he pleads for nothing garish. Whether "the effect of a whole thoroughfare in which the dominating tints should be blues and greens, or greys and yellows, relieved by ivory white," would be, as you say, "a nightmare," or, as he says, "delightful," would obviously depend on the manner in which the scheme were carried out, and on the susceptibilities of the observer. Is it seriously suggested, for instance, that even Mr. Halsey Ricardo's experiment in coloured architecture at Kensington is a nightmare, or would be such were it widely extended? There are those who would find nothing but pleasure in a whole thoroughfare of such buildings, in colours broken up, as they are in this instance, by ivory set against a background of more sombre tints.

Or again, a simpler change. It is common practice to employ red brick between pilasters of stone; the Admiralty buildings are a case in point, and, shorn of the war-time excrescences on the roof, are generally admired. But why confine this combination of a colour tint with stone to red? Would not a matt surface terra cotta in a deep shade of blue harmonise equally well with the weathered stone and give new pleasure to the colour-hungry denizens of our sombre cities?

Yours, etc.,
FRANK MCCARTHY.

The Adornment of Cities.

To the Editor of THE ARCHITECT.

SIR,—Mr. R. M. Hogge, M.P., has been calling attention to the lamentable absence of brightness and colour in London and the great industrial centres. He emphasises in particular "the æsthetic and moral value of colour in buildings." May I suggest another value—that of health, and plead for a gigantic spring cleaning to bring out such colour as we have? All sorts of beauties, both in simple tones and in harmonious designs, lie buried under atmospheric filth. Everywhere one sees clubs, offices, shop, and house fronts, in tiles or painted timbers, washed down—or rather up—as high as an easy reach, and thence left dirty.

Professor Reilly recently declared a certain Piccadilly building as disgusting as an unwashed collar. Yet this edifice is of a material that cleanses readily. Not far distant is another building of identical construction that is hosed down periodically, and is resplendent. The Embankment Fire Station becomes encrusted to a height of several feet with mud from passing traffic. It is frequently washed down, but the dirt is too ingrained. Had the building been faced with washable material, five minutes with the hose would, even after ten or twenty years, make it clean as new. Who ever notices that the India Office, to quote one more example, wears a double girdle of coloured gems—medallions and bosses in polished carmines set in tiles? Alas! They are heavily veiled in soot.

Let all our big cities wash their faces. It would improve at once their beauty and their healthfulness.

Yours, etc.,
T. N. KELYNACK, M.D., Ch.B., M.R.C.P.,
Hon. Secretary, Royal Institute of Public Health.
37 Russell Square, W.C.1, January 19.

Architects and Colour.

To the Editor of THE ARCHITECT.

SIR,—At a recent conference of public men, called to consider a rebuilding scheme, it was affirmed, with general agreement, that architects are less susceptible to public opinion than the members of other professions, and that more than any other they impose their judgments, whether right or wrong, upon their clients.

The occasion of the remark was a proposal to embody in the scheme certain frontages in dull-glazed coloured terra cotta, with a view to brightening a dull locality—as Mr. J. M. Hogge, M.P., in a letter to the Press has since advocated.

It was objected that the architects would lack the courage to depart from the brick and stone convention and, notwithstanding the admirable use of such material in various buildings up and down the country, would succeed in over-ruling their clients' preference.

A friend connected with the building trade assures me that many architects fail to keep abreast of the times and are ignorant of the properties and uses of new materials. Thus, one, when supplying formal data on London buildings, described Pagani's restaurant as built of "coloured tiles," and the popular restaurants known as the Corner Houses, as of "glazed tiles"; whereas the former is of constructional faience and terra cotta, and the latter of terra cotta ashlars with a matt vitreous surface.

Is this general accusation justified? *Do* architects neglect to acquaint themselves with new methods and materials? *Are* they indifferent to what Mr. Hogge describes as the "æsthetic and moral value of colour in buildings"? The views of your readers would be interesting.

Yours, etc.,
NOEL INCHCAPE.

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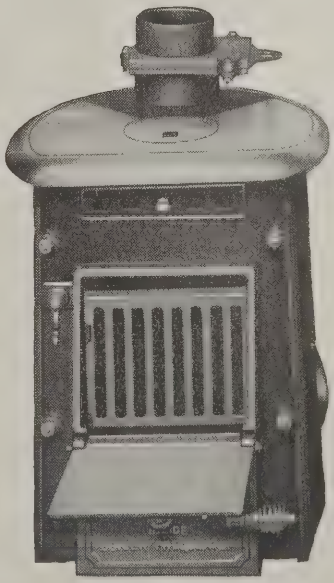

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Scottish National War Memorial.

The Council of the Edinburgh Architectural Association have sent the following report to H.M. Office of Works :—

(Copy)

The Secretary, H.M. Office of Works,
Storey's Gate, London, January 9, 1923.

SCOTTISH NATIONAL WAR MEMORIAL, EDINBURGH CASTLE.

SIR,—We, the Council of the Edinburgh Architectural Association, have the honour to inform you that, having regard to the widespread public interest which has been aroused in connection with the proposed Scottish National War Memorial, deem it fitting to submit an opinion thereupon.

Actuated by a strong and earnest desire to see the Memorial materialise in such a form as will best harmonise with its situation, we are of opinion that such adjustments should be made upon the scheme as will meet all well informed and relevant criticism, and so secure that greater degree of unanimity and support which the nature of the project requires and deserves.

We desire to record our appreciation of the facilities given us for inspecting the model and plans of the Memorial, and for the courtesy of Sir Robert Lorimer in personally explaining the scheme. We desire also to record our unanimous appreciation of the excellence of the architectural design.

The findings of the Council may be briefly stated as follows :—

(1) That the Castle forms the most suitable site for the Scottish National War Memorial.

(2) That serious criticism has centred round the proposed removal of Tarrant's building, which, although of no great historic or architectural interest, plays a most important part in raising the general skyline above the uncompromising level platforms of the Forewall and Halfmoon Batteries, and that this building should not be removed unless replaced by something of approximately equal bulk.

As seen from the N.E., its rising outline counteracts the falling perspective of these Batteries, and unites with the old Palace buildings to form the main mass of the Castle. The present scheme of the Memorial Committee lowers the dominant skyline to the Battery level in leaving behind it only detached buildings which seem to compete for supremacy.

(3) That the suggestions which have been made to modify the design by (a) lowering the floor of the shrine, or (b) raising the cloisters, would, in the opinion of the Council, impair the composition of the Memorial without satisfactorily achieving the desired object.

(4) That, owing to the position of the shrine, and the fact that its apparent height would equal that of the existing Palace Tower, the gradually ascending outline of the Castle buildings, viewed as a whole, would be broken into, thus disturbing the balance of the composition as a whole.

(5) That as part of the original scheme has apparently been abandoned—viz., the alterations upon the western buildings—it would seem that it is not now essential to have the principal approach to the Memorial from the Crown Square.

The Council of the Edinburgh Architectural Association are of the opinion that criticism of the scheme without definite suggestions would not be helpful, nor in accordance with their sympathetic attitude towards the project, and whilst recognising that the suitability of their suggestions can only be determined by the preparation of sketch plans and models, venture to submit for consideration the following alternative proposals :—

(a) Assuming the removal of Tarrant's building as now proposed by the Memorial Committee, and that an axial line be taken, passing through the centre of Crown Square, from north to south, that the plan of the proposed new buildings be transposed, so as to place the shrine to the south, with the Gallery of Regiments and principal entrance facing north.

The southmost point of the shrine to agree with the present south wall of Tarrant's building, or even to encroach slightly southward into the Crown Square. The effect of this would be appreciably to reduce the apparent height (by fore-shortening) of the proposed "shrine," as seen from Princes Street. As seen from the east and north-east, the shrine would be brought into closer relation with the Palace buildings, so avoiding its too isolated position as at present proposed.

The general ground line of the proposed site might with advantage be somewhat lowered as a further aid in attaining the object in view.

(b) That the Square, with its distinctive historic associations, be left untouched, and that the memorial hall and shrine be confined to the semi-circular space now occupied by sheds to the east of Foog's Gate.

This proposal allows of the retention of Tarrant's building, the shrine remaining on the site originally suggested, but with its blind side turned to the south and attached to Tarrant's building and the entry on the north towards St. Margaret's Chapel. The Hall of Memorials would in this case extend along the side of the roadway towards Foog's Gate, perhaps enclosing a small sheltered garden court between cloister and shrine

Suggestions "a" and "b" provide for a screen of lower buildings in front of the shrine which would preserve the smaller scale of existing buildings in this area and of St Margaret's Chapel, which marks the real summit of the rock.

(c) That the old Barracks building be removed and the Memorial erected on the site, but in general arrangement more as a reversion to the very ancient church which formerly occupied this position, and of such a height as would more or less retain the skyline. The site seems particularly suitable for such traditional treatment and orientation, and if the principal entrance be made from the west, it would be approached by gradual and continuous ascent, instead of, as in the present scheme, by descent to the Palace Yard and ascent again to the shrine. The central portion would fulfil the functions of the proposed cloister as a gallery of the regiments, with a secondary south doorway leading down to the Palace Yard, while the shrine might appropriately form an apsidal eastern termination, approximately on the spot already hallowed from early times. The lower rock level at the east end would give the requisite height for the shrine without necessarily making it the dominant feature, and in this position as viewed from the east, it would appear to rise over the Half-moon Battery, as the focus of the axial line from Castle Hill across the Esplanade to the drawbridge, along which all approach to the Castle is made.

In conclusion, as the crowning finish of the shrine must necessarily from its elevation be viewed against the sky, the telling effect and symbolic significance of a pointed termination might well be considered.

We are aware that the third proposal is somewhat drastic, departing from the scheme as published, but are of opinion that it presents the most satisfactory and natural solution of the problem.—We have the honour to be, sir, your obedient servants,

(Sgd.) T. AIKMAN SWAN, president.
(Sgd.) STEWART KAYE, hon. secretary.
Edinburgh Architectural Association,
Edinburgh Chapter of
the Institute of Scottish Architects,
14 Hill Street, Edinburgh.

"The Architect" Fifty Years Ago.

JANUARY 25, 1873.

CONSTANT WATER SUPPLY IN LONDON.

The regulations for the constant supply of water submitted by the water companies of the metropolis, and approved by the Board of Trade, formed the subject of discussion at the last meeting of the Lambeth Vestry, and a resolution was agreed to affirming "that the regulations made for the constant supply of water are not only oppressive, but vexatious and conflicting, as against owners and consumers, in relation to the prescribed fittings required under the Metropolis Water Act, and that in relation to constant supply it appears doubtful whether the same can be obtained without considerable difficulty and enormous expense being incurred. Legislation on this important subject is difficult and ambiguous, and the interests of the owners or consumers have been overborne and sacrificed to the powerfully-vested interests of the water companies within the metropolitan area." At the same meeting the medical officer of health reported the existence of a number of cases of typhus fever, and an analysis of the waters of the companies supplying the district has shown that although somewhat improved, they were on the occasion of the examination unfit for domestic use unless thoroughly filtered, and there was still much to be desired in the direction of a really satisfactory water supply.

At the last meeting of the Shoreditch Vestry the Sanitary Committee reported that having considered the Board of Trade regulations, they had come to the conclusion "that the regulations are unnecessarily expensive, and totally inapplicable to the class of houses for the benefit of whose inhabitants they were intended." The Mile End Vestry have also unanimously adopted the following resolution :—"That, notwithstanding the advantages which may be expected to arise from a constant supply of water in this district, the regulations adopted by the Board of Trade are so unsatisfactory, and would lead to such an enormous expense, and be a source of such annoyance to consumers, that the Vestry hope the Metropolitan Board will resist them, even to refusing a constant supply of water on such vexatious conditions." The Whitechapel District Board of Works have resolved "that, to comply with the regulations with regard to the fittings for a constant supply of water as a retrospective measure will entail costs so excessive as to become oppressive." The Local Boards of Limehouse, St. George's-in-the-East, and the East of London generally have passed similar resolutions.

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Unification, Registration and Facts.

The meeting held to consider and approve the Registration Bill promoted by the R.I.B.A. Council ended as those who knew the facts might have surmised. The Eastern saying, "Oh, that mine enemy had written a book," might be paraphrased "Oh, that mine enemy had produced a scheme," for, while it is easy to generalise, it is only when definite proposals are made that any man or party is completely open to attack. The main facts of the situation seem to us to be as follows: In the provinces the majority of the professional societies, who are very largely composed of men who have not the R.I.B.A. qualifications, look with favour on a scheme which would enable them to become members of the Institute without undergoing the customary tests, and therefore from this mixed body of members of the R.I.B.A. and outside architects a majority can be obtained for Unification.

But it is equally obvious to us that if the R.I.B.A. electorate alone is in question there is always likely to be a clear majority against any widely based scheme of unification, as was clearly and unmistakably shown by the results of the last Council elections.

This feeling has been clearly demonstrated again and again in the past. We may recall the first definite proposals made to effect the union of the Institute and Society during the presidency of Mr. Leonard Stokes. We regretted that failure, but it was complete and decisive. Opinions change, and it is just within the range of possibility that had the last Council proposed a limited scheme of unification only entailing the union of the Institute and Society that scheme might have been accepted by the R.I.B.A. electorate, but the wider and more comprehensive proposals made were clearly most unpopular.

We understand the Unification Committee's objecting to what was practically their dismissal before they had made their report and after they had done two years' work, but may point out that either their report would have been in favour of a wide measure of unification, in which case it would have been unacceptable to the majority, as represented by the *personnel* of the present Council, or, on the other hand, it would have been adverse to a large measure of unification, in which case they would have little to complain of; in any case, it is merely a question of etiquette and manners, and in the rough and tumble conditions of politics, whether national or professional, these things do or will happen.

The fact which emerges is that many prominent architects who had worked hard for a certain policy were rejected because they advocated that policy and a Council which included less prominent men were elected in their stead. These facts seem to us an ample justification for the action taken by the present Council, who had no other course open to them than that which they have adopted.

We are not surprised that they failed to obtain the two-thirds majority they required and that the voting took the form of a two-thirds majority to refer the whole matter back in order to get what is entitled greater unanimity of opinion among architects.

We doubt whether greater unanimity will be forthcoming because, however many people or bodies are consulted, there will always remain individuals who have not been consulted and these will express their dissent with the proposals made, though, in case the measure to the provisions of which they objected were proceeded with, they would in most cases give it their support.

As far as the Society is concerned we can quite understand its members being slightly irritated with the manner in which it has been alternately wooed and abandoned by the R.I.B.A., and we should not expect any proposals made by the R.I.B.A. would meet with its enthusiastic support. On the other hand, we are sure the Society would not oppose the Bill, and it is quite possible that a general agreement would have been brought about in the end which would have converted its attitude of benevolent neutrality into one of active support. The exact time at which this change of view is effected does not seem to us to be very material.

The debate on the Bill was conducted in a spirit of good temper and many good speeches were made, both for and against the proposals made.

Mr. Perks conducted his case ably and well and was admirably supported by Mr. Delissa Joseph, who seemed to us to entirely dispel the objections raised to what the Council proposed. He proved with mathematical precision that the Council had done the only thing which was open to them.

The list of speakers against the Council's proposals was a long one, including Major Barnes, Major Corlette, Mr. Gunton, Mr. Percy Thomas, Mr. F. Jones and Mr. E. P. Warren, and lastly, and most important of all, Sir Aston Webb, and the Council's proposals were finally referred back on the motion of Mr. Guy Dawber, by a majority of 149 to 74, the amendment being put as a motion and being passed by the necessary two-thirds majority of 166 to 83. It now remains to wait and see whether any substantial advance can be made by securing the general agreement talked about. If this is effected the present Council may yet proceed with a Registration Bill if they are not ejected from power as a result of the May elections.

Prophecy is a doubtful occupation, but we should be inclined to say that in any case were a new Council to proceed once more with an attempt to tack Registration on to a measure of Unification they would find precisely the same difficulty in getting the general body of the R.I.B.A. to endorse their proposals. It may be that we are bound to go through our lives with the old man of the seas securely placed across our backs, and we are very tired of the incubus. We suggest the whole subject might form an admirable theme for the pen of Bernard Shaw or some other literary caricaturist, though some of us might wince at the *rôle* we filled in his caustic narrative.

Our Illustrations.

PROPOSED ADDITIONS TO THE GOLF HOTEL, LE TOUQUET. E. Vincent Harris, Architect.
"BROADWAY DOWN TOWN" AND "2 A.M. NEW YORK." Etchings by C. R. W. Nevinson.
R.E. MEMORIAL AT CHATHAM. A. W. S. Cross and K. M. B. Cross, Architects.
CONCRETE COTTAGES NEAR RICHMOND. Robert Lowry, Architect.

Design for Royal Engineers' War Memorial, Chatham.

A. W. S. Cross and K. M. B. Cross, Architects

In this design, which was submitted in competition, it was proposed to leave untouched the existing roadway and to provide free access from it to the Barracks Square through the Crimean Memorial Archway by means of the 20-feet roadways formed on either side of the new central Memorial. The memorial takes the form of an obelisk centrally placed between the two existing archways and faced throughout with Portland stone upon an open framework of ferro-concrete filled in with concrete walling. The work of the Royal Engineers is commemorated by a running frieze of rather over life-size figures carved in high relief in stone continued round each face of the pedestal and on the front by a bronze medallion portrait of Lord Kitchener, framed by a wreath of laurels.

Notes and Comments.

The R.I.B.A. Prize Drawings.

The drawings and designs submitted for the R.I.B.A. prizes this year are not of a high average of merit and some of the prizes might well have been withheld, among which we may mention the Pugin Studentship, awarded to Mr. A. Newton Thorpe for some very uninspired drawings of Bolton Church. On the other hand the Measured Drawings Medal has been well won by a masterly set of drawings of the Campidoglio Palace, Rome, by Mr. Wesley Dougill, and the Owen Jones Studentship has been awarded to Mr. C. F. Filbey for some very fine colour drawings of Oriental work made at the Victoria and Albert Museum.

The competition for the Tite Prize has produced some very interesting and sound work, which is not, however, of outstanding merit. Both the winner, Mr. Shepherd, who has sent in by far the best general scheme, and Miss Isabel M. Chambers have produced schemes of merit. Both the Grissell Gold Medal and Saxon Snell Prize have attracted more competition than some of the greater prizes, a result which is rather remarkable.

We suppose the falling off in quality of the work submitted for student's prize is the result of the greater number of opportunities now offered to the younger men in the profession.

State Housing.

The following paragraph has been inserted recently in the "agony" columns of "The Times" by someone whose feelings had to be expressed in print even at the cost of an advertisement:—

"Another State-Aided Housing Scheme! As fast as one leak is stopped another breaks out. No wonder the taxpayer groans. Why should those who are, by thrift, buying their own houses, built without State aid, contribute towards the cost of supplying others with new houses? House building must be done by private enterprise, not by the State and Municipal Authorities.—A. J."

We must say we are quite in agreement with the writer. If it be admitted that private enterprise alone can cope with the housing question in the future, it is equally clear that nothing can be done until interference is ended and that whether the housing proposals of the Government are big or small they are alike inexpedient and must have a bad effect. We hope that those in authority will clearly state what their policy is at the earliest possible date and that they will not follow the bad precedent set.

The Whitgift Hospital.

Croydon has decided by a majority of 1,865 in favour of the demolition of the Whitgift Hospital, the voting being 8,379 to 6,514, but the Bill for its removal is to be opposed in Parliament and the question cannot be considered as being settled by a poll in which only 17 per cent. of the electorate took part. Croydon is for its size a somewhat uninteresting if well administered and healthy town, and it is for this reason an additional pity that its finest monument should be destroyed. The Croydon Council estimate the cost of their scheme for road widening, which necessitates demolition, at £75,000, while they estimate the cost of the alternative scheme at £175,000. A proposal to move the whole building back is estimated as being likely to cost £25,000, and is, probably for that reason, and the inherent difficulties of the project, unlikely to be entertained. We hope that the county borough of Croydon will be able to free itself from the suspicion of Philistinism which now envelops it!

The Registration Meeting.

One of the speakers at Monday's R.I.B.A., meeting complained that the provisions of the Bill were not drastic enough, inasmuch that while no one who was not on the register could call himself an architect, anyone could draw up plans and designs. Apparently the speaker expected this to be made a penal offence and forgot that while no one can practise as a doctor or solicitor without qualification, anyone can give advice on matters of law and medicine and charge for their advice. The chief difference between the positions of the several professions is this, that law is recognised as being hedged in with intricacy and danger, and that most of us are too anxious about our bodily welfare to risk experiments, while building has more attractions and it is thought involves fewer dangers. Besides there is as a sheet anchor the reliance of the public on a good and experienced builder and the further safeguard of local regulations. It is therefore very difficult to convince many that they can go far wrong, and this is the weakness of our position as regards Registration.

Forthcoming Events.

Monday, February 5.—Royal Institute of British Architects. President's Address to Students and Presentation of Prizes. 8.30 p.m.

Tuesday, February 6.—Institution of Sanitary Engineers. Meeting at Caxton Hall, Westminster. Paper by Mr. Percy Griffith, M.Inst.C.E., etc., entitled "National Water Resources and their Allocation." 8 p.m.

Institution of Heating and Ventilating Engineers. Annual general meeting at the Holborn Restaurant, W.C. 2.30 p.m.

Wednesday, February 7.—Royal Academy Winter Exhibition of Decorative Art, Burlington House, W. Lecture by Mr. A. R. Powys, entitled "The Influence of the Arts and Crafts Movement on Architecture." 3.30 p.m.

Royal Archæological Institute. Meeting in the apartments of the Society of Antiquaries, Burlington House, W. Paper by Mr. F. Maurice Drake, entitled "The Making of Stained Glass Windows." 5 p.m.

Thursday, February 8.—Chadwick Public Lecture at 9, Conduit Street, W., by Mr. G. Topham Forrest, F.R.I.B.A., etc., entitled "L.C.C. Post-War Re-housing." 8 p.m.

Incorporated Institute of British Decorators. Meeting at Painters' Hall, Little Trinity Lane, E.C. Paper by Professor R. Anning Bell, entitled "Fresco Painting." 7.30 p.m.

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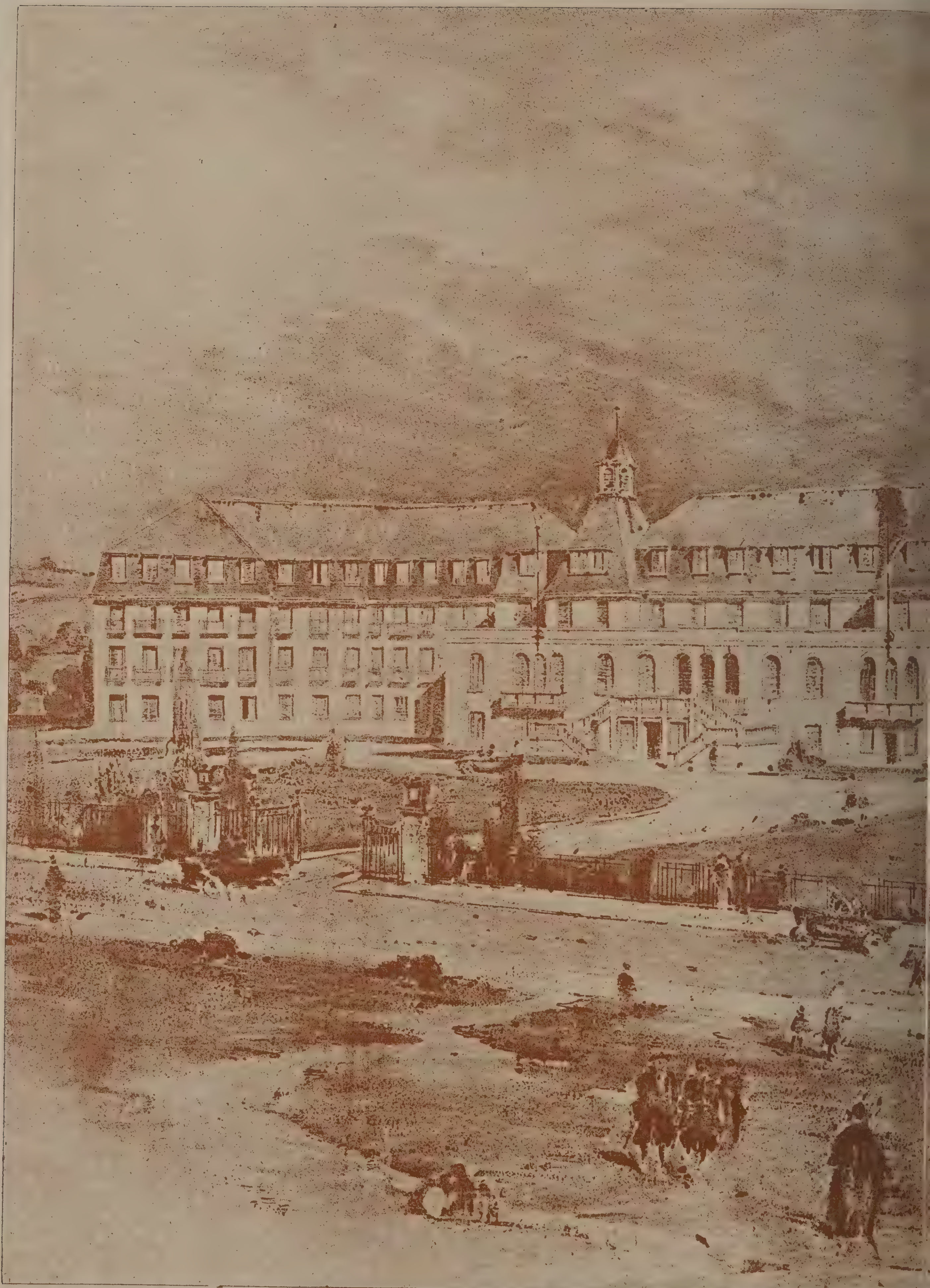

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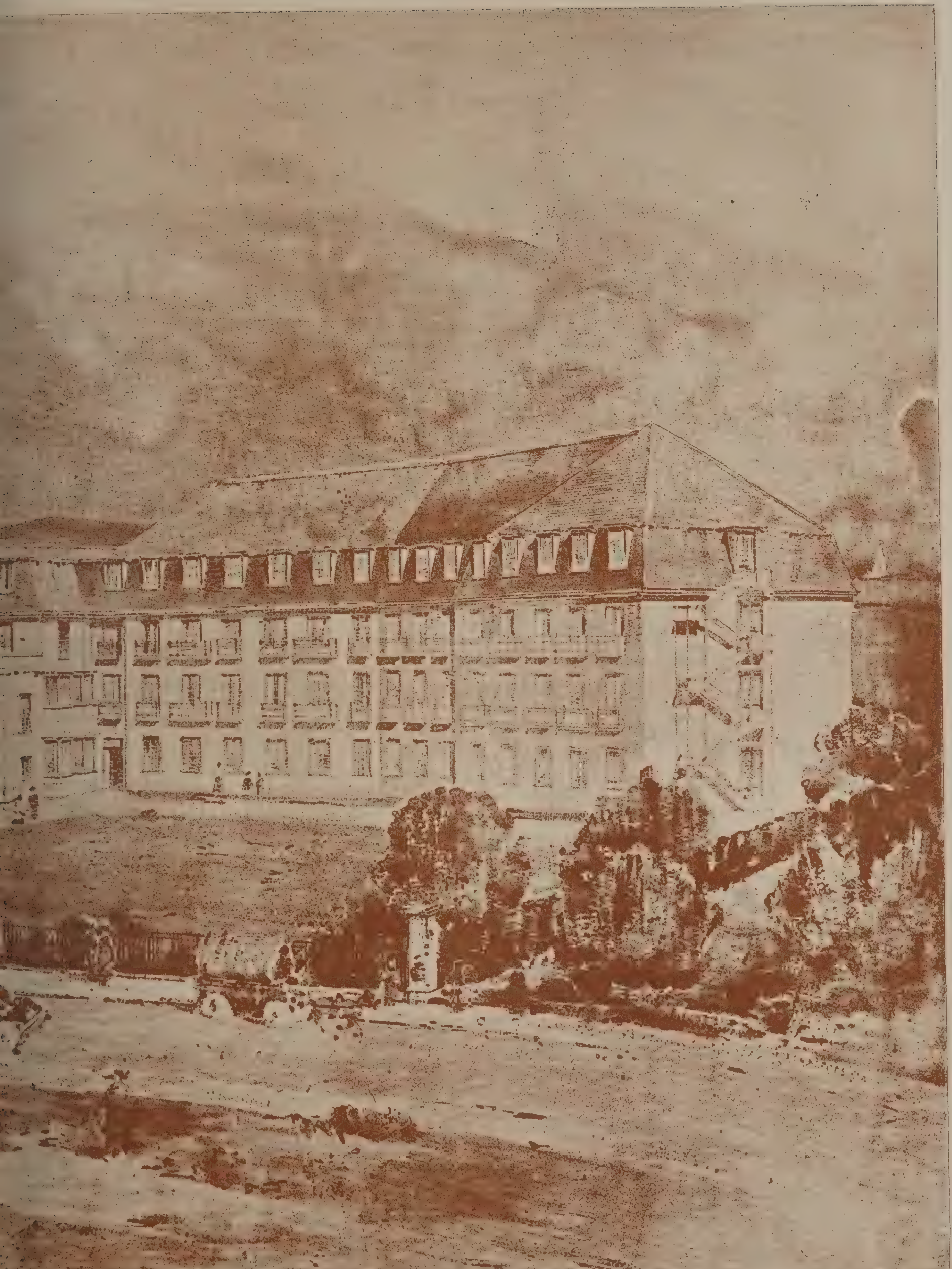

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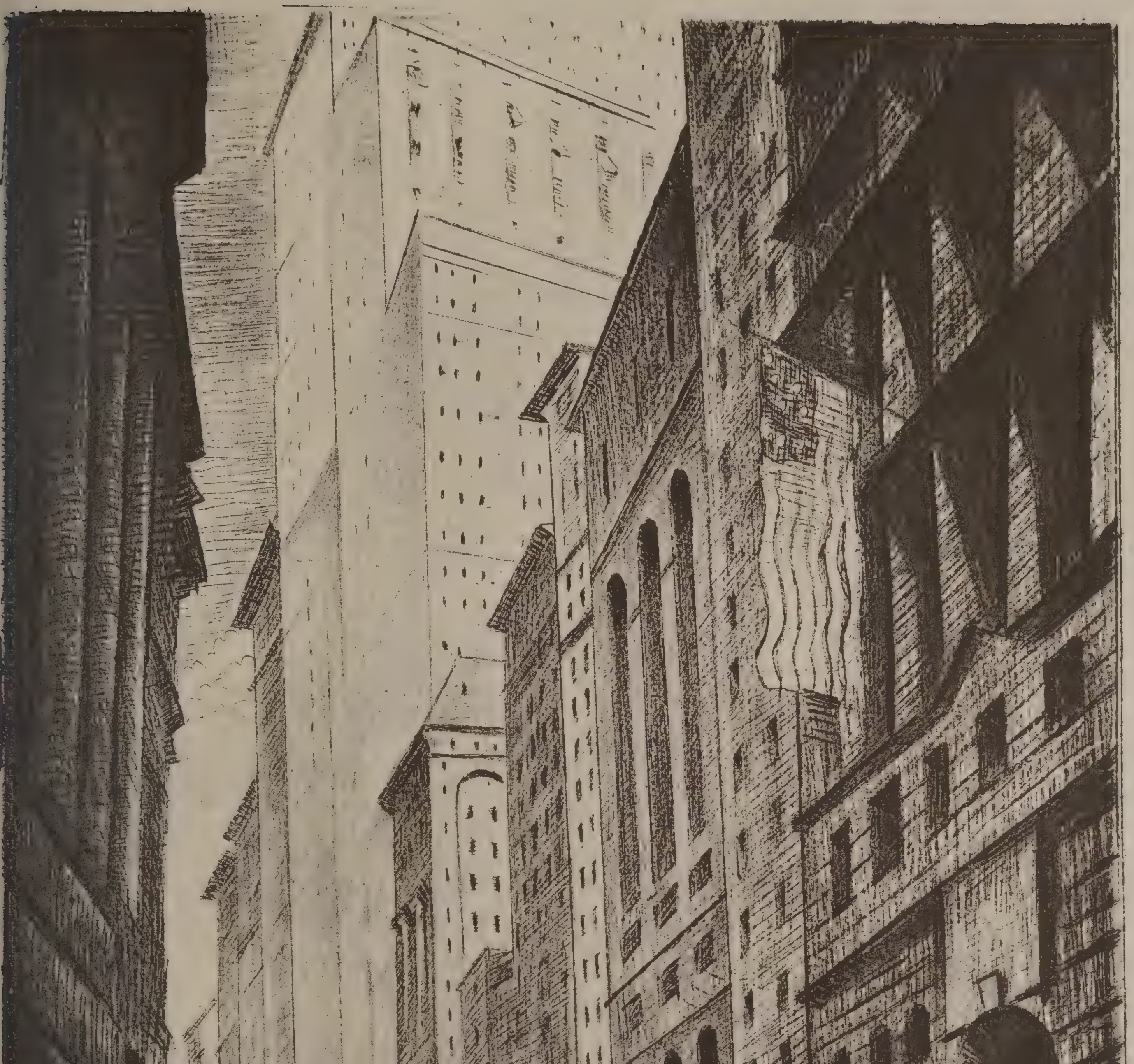

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BROADWAY DOWN TOWN, NEW YORK.

Etching by C. R. W. Nevinson.

Exhibited at the Leicester Galleries.

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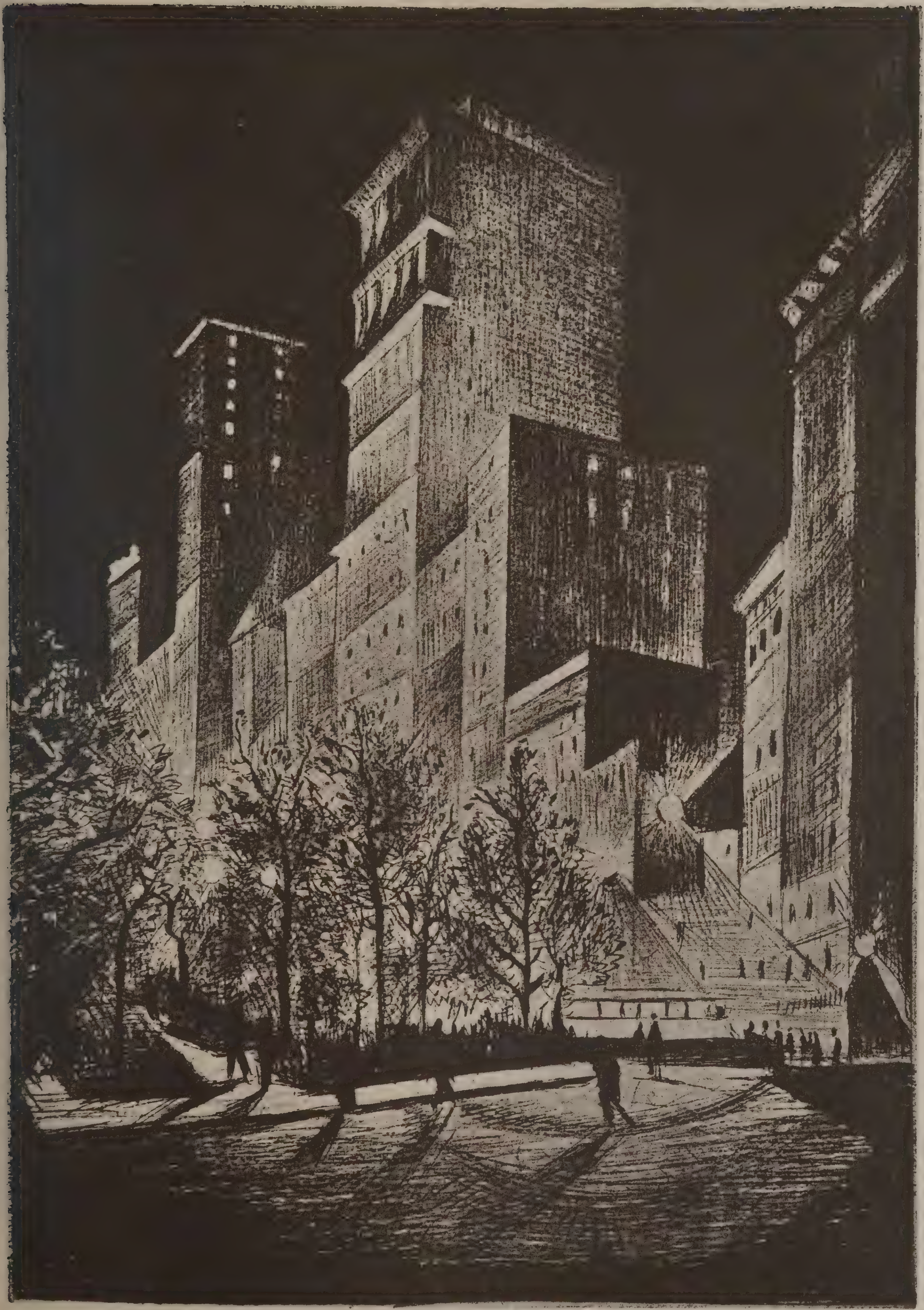

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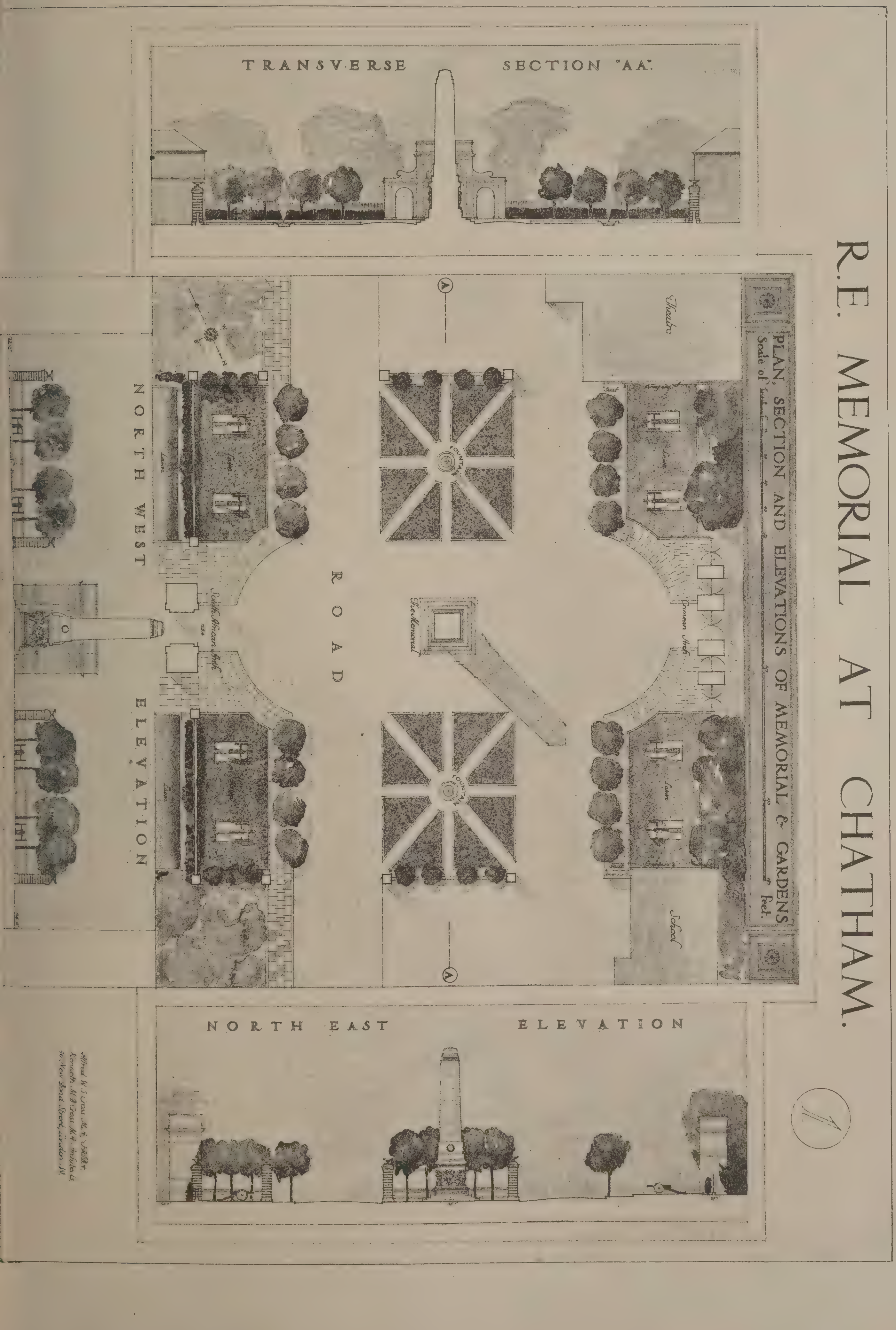

R.E. MEMORIAL AT CHATHAM.

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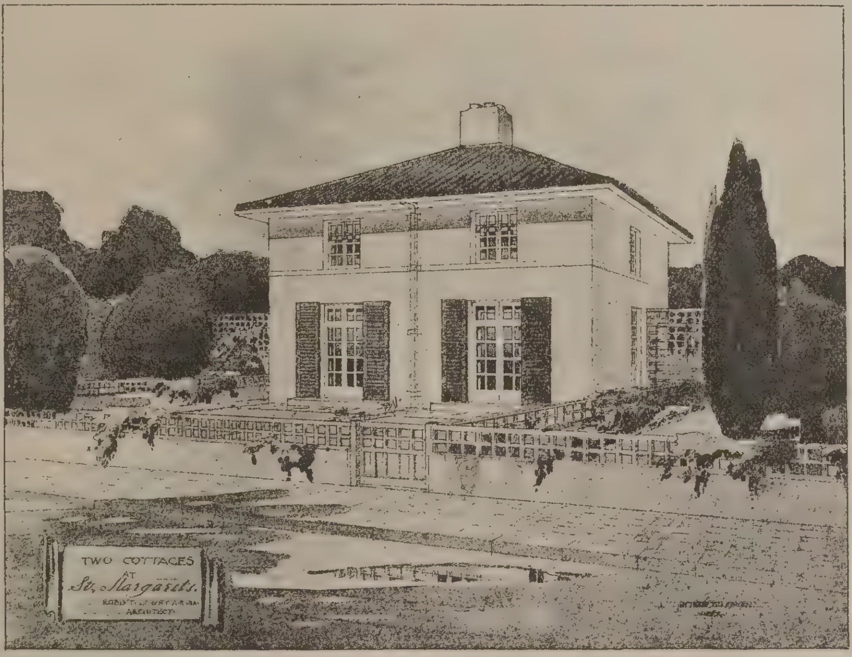
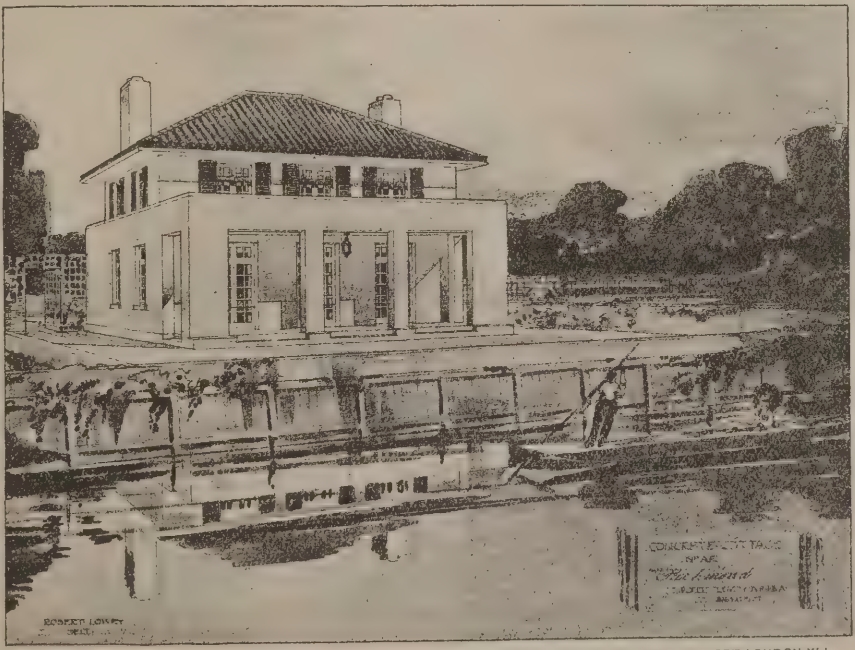


TWO COTTAGES AT ST. MARGARET'S-ON-THAMES.



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CONCRETE COTTAGE NEAR RICHMOND.

ROBERT LOWRY, ARCHITECT.

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A Collection on the History of Decorative Art.

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I wish in this issue to call particular attention to a collection of drawings, etchings, rubbings, photographs, woodcuts, prints, MS. notes, and other material dealing with the History of Decorative Art from the earliest up to our modern times which, it seems to me, if made properly accessible, might be of the greatest value to students, not only of decorative art, but also of architecture in its subordinate but most important accessories. In this last connection it is relevant to the view here suggested to note that Mr. Starkie Gardner—and it is of his collection I am now writing—is a practical metal-worker of very high order and of forty years' experience, the creator, among other works, of the magnificent Gates and Screens of Holyrood Palace, which were part of the Scottish Memorial to the late King Edward VII., to whom Mr. Gardner held the appointment of metal-worker, and, in fact, it was as an aid to his designs in metal-work that this collection was some forty years ago originally formed.

But as time went the scope of the collection became gradually enlarged, and its leading idea and motive became centred in the development of Decorative Art through the ages, the results being now systematically arranged in twenty portfolios. The only collection of a private character which I can compare it with in my own experience was that of my late friend, Baron Guggenheim, in his magnificent palace—the Palazzo Balbi—on the Grand Canal at Venice. Baron Guggenheim, an expert in his subject, had there collected some wonderful material on decorative art, including marble and stone work and beautiful brocades, which was of the greatest service to him in his own work and researches. But these were rather personal notes and acquisitions than, as the Starkie Gardner Collection, a collection systematically arranged in order of time, and covering British decoration from the Conqueror to the present day. The portfolios contain over 42,000 illustrations, including some 11,000 drawings and 10,000 MS. notes by Mr. Gardner himself.

I cannot pretend to have been through the whole of the twenty portfolios, but the one which I selected for especial study, No. XII., dealing with the period of Queen Anne (A.D. 1702–1714) and containing 286 notes, 1,831 pictures, and 317 original drawings by Mr. Gardner himself, fully confirmed the above impression; and I may add that some of these drawings of architectural details and metal-work especially were admirable in their finish and detail of design. The collection is one which obviously would be of the most real service to an art craftsman; and this remark brings me to the special point which I wish to bring before my readers in this notice.

The proper place for a collection of this nature, if it could be acquired on reasonable terms—which I imagine might be the case—would be in one of our public museums, preferably, I would myself suggest, in the Art Library of the Victoria and Albert Museum, which is so admirably managed, and whose usefulness, in art research, I have often experienced myself. Though the desire to part with his collection has not been arrived at until after long and serious consideration, it is felt by Mr. Starkie Gardner that it would be of more value in a public museum, either in this country or in the United States, than in his own possession, for he very probably feels that his life work in this direction has been, in its main features at least, already accomplished. Personally I should regret to see this valuable material, like so many of our art treasures, quitting these shores for a land where it will be accepted and appreciated; but this will, not improbably, be the case unless our authorities take advantage of their opportunity while it is still there. In the meantime I should like to point out to any of my readers who have followed me so far that the collection is now on view at 18 Cork Street, Burlington Gardens, and that the portfolios, while they remain there, are at their free disposal for study and research.

When I had occasion to visit the National Gallery last week I found that the Sargent portraits in Gallery XXVI. had brought a large public to admire their beauties; but that two interesting recent acquisitions in Gallery XII. were comparatively deserted. This is not to suggest that the magnificent series of Wertheimer portraits did not merit the approval they are getting. On the contrary, I never admired more the subtle psychology in the famous dealer himself, whose keen eyes and half-kindly, half-cynical smile look you through and dissect your business values—the superb vitality and *joie de vivre* of " Ena and Betty," where the crimson and warm pearly gold note of the dresses tell out so marvellously the flesh tints—the admirable Mrs. Asher Wertheimer, or the three-quarter length upright figure of the young Alfred, one of the most direct and satisfying portraits of them all. But even so the two Dutch pictures just added to Room XII. well deserve a visit. The first of these—another gift from the National Art Collections Fund—represents a musical instrument dealer at his booth in the open air, and is one of the four existing signed and dated works by a rare and much discussed master, Carel Fabritius, pupil of Rembrandt and himself master of Vermeer of Delft. It is interesting to compare this dainty little painting by Carel with the Jan Vermeer—a lady at the clavichord—bequeathed to our Gallery by the late George Salting, in the same room with this work and another Vermeer of Delft, " The Lady at the Virginals."

The second picture which has come to our collection, purchased by the Trustees from Messrs. Agnew, is by that fine artist, Emanuel de Witte, the painter of church interiors, here seen in an unusual mood as painting a lively open-air piece with figures. " The Fish Stall " is quite modern both in design and in the use of bright sunlight thrown upon the figures and the flapping sails in the background. A companion picture by De Witte from the Boysmans Museum at Rotterdam, which I visited last summer, excited much attention when shown in Paris lately.

Important events in the Galleries are the exhibition of work by Sir John Lavery, E. Q. Henriques, H. J. Gunn and W. Rothenstein, opened at the Grosvenor Galleries on February 1st; the exhibition of etchings by Nevinson and paintings by E. Blampied at the Leicester Galleries on February 3rd, and of Mark Gertler's work at the Goupil Gallery on February 1st. Before these in date came the Augustus John early paintings at the Independent Gallery on January 25th. The clever children paintings, from the point of view of " fantastic humour," by Chloe Preston, at the Gieves Gallery, are exciting much attention.

S. B.

Scarborough Town Council have approved a draft scheme for the building of 48 flats in the East Ward in Longwestgate, Scarborough, in two blocks. The average cost of the flats will be from £499.

The Bath Surveying Committee last week adopted a site plan submitted by the city architect for the building of 50 houses on the " Tank Field," Combe Down. It is expected that the houses to be erected will rent at from £65 to £70 a year.

Lancaster Town Council are about to purchase from the Disposal Board the power station, land, and specified electrical plant of the National Projectile Factory, Lancaster, at a cost of £30,000. It is part of the scheme to supply electricity to the area of Lancaster, Morecambe, and Heysham.

At the last Council meeting of the Royal Institute of Architects of Ireland, held in South Frederick Street, Dublin, Mr. G. F. Sheridan, F.R.I.A.I., occupied the chair. Mr. J. H. Webb was elected vice-president and Mr. H. H. Hill, Cork, was co-opted to fill his place on the Council. The President and Hon. Sec. were appointed representatives to the meeting called by the Civic Institute in connection with the civic survey of Dublin. Special committees were appointed.

At a recent general meeting of the Association of Old Students of the Royal College of Art, South Kensington, which is now an important body of artists, numbering nearly four hundred members, Sir Edwin Lutyens, R.A., Sir Frank Short, R.A., P.R.E., Mr. George Clausen, R.A., and Mr. Alfred Drury, R.A., representing the arts of Architecture, Engraving, Painting, and Sculpture, were elected vice-presidents. The applied arts are represented by Mr. Alexander Fisher, Hon. A.R.C.A.(Lon.), R.B.S., the president of the Association.

Architectural Association.

An ordinary general meeting of the Architectural Association was held on Monday, January 29, at 35, Tufton Street, W.C., Mr. Stanley Hamp, president, in the chair.

In the course of some preliminary business, the President congratulated two of the A.A. students on their success in the R.I.B.A. Examinations: the Tite Prize had been won by Mr. J. C. Shepherd, and a Certificate of Hon. Mention in the same competition had been awarded to Miss Chambers. This was the first time a lady had been successful in the Institute Examinations.

Mr. Albert Rutherston then gave a short address on

THE ARTIST CRAFTSMAN IN THE THEATRE OF TO-DAY.

One always felt, said Mr. Ruthertson, on an occasion like the present, that whenever the matter of a theatre was mentioned the speaker was expected to pull mysterious rabbits out of mysterious silk hats. The subject was extremely vague. People were apt to talk as if there was a theatre in this country to design for. He was going to take the opportunity of being in the presence of fellow craftsmen to talk frankly, and so he would say at once there really was no theatre to design for. They must therefore take stock of the position and try and discover what they as artists, trained on certain lines with certain emotions to express, would demand to do if they possessed such a theatre. It seemed to him that the first thing to do would be to fall back on their creed. His own creed was a very simple one: namely, that it was the business of the artist to enrich the world by all the means in his power. Artists study, work and slave for certain ends, and if they could hope by sincerely trying to give what they had in them to give without any compromise they stood a chance of achieving something as artists. If that chance be taken away they were faced with emptiness. Secondly, they must to some extent answer the question when looking at works of art which the ages had given them, as to what qualities made them to be regarded with respect and homage. When they did that they would find there were two outstanding common factors, whether they took the art of the East or the West, that of the Assyrians or the Egyptians or the Greeks. The first was the quality of inspiration which runs through them and makes them live. The second thing, and one of equal importance, was what might be best described as the quality of service. By that he meant that in the past when creative works of art have been conceived by artists they have been invariably conceived under a great influence, generally that of religion, which has prompted them with enthusiasm.

It was right to question the standing of the theatre in England to-day and its ability not only to give birth to but to stand for and echo the emotions which a great country can arouse. Artists were not content to be at the mercy of caprice, or fashion or of stock brokers. The theatre ought to be something stable and independent, and supported by the country, just as the police, the navy or the army were supported. The latter were for material protection, so there ought to be provisions of intellectural protection. When they achieved such theatres they would get a higher standard not only of acting but also of decoration in the art of the theatre.

People were so vague when talking about the theatre. They were interested in pretty women and distinguished gentlemen and knew all about them as to their private lives but little as to what they could do as artists. The theatre took more brains than one. There was to-day a great deal of talent, but it lacked fine leadership. The leaders could not afford to go the length they would like to go, and so they compromised. But artists were not concerned with compromise and had to live their own lives. Therefore, when one discussed the point of view of a stage setting one had to make up one's mind whether it was worth while or not. So long as there flourished a system which could not offer respect to craftsmen and could not help them to experiment, so long would they find difficulty in their theatre in raising the standard and getting a sufficient number of people working for it at one time.

Another vendetta appears to exist between those who wished only for the chance of creative service and the other servants of the theatre—especially the playwright. They were told occasionally by actor-managers that "the play's the thing"—thereby deliberately misquoting Hamlet's meaning. To-day one saw in this country no consideration for the brains which go to make up the composite whole when a real effort is made. The sole present exceptions were the Birmingham Repertory Theatre and Mr. Playfair's theatre at Hammersmith. Twelve years ago he himself had proved how much better the work could be done by an artist craftsman. Granted a theatre which possessed the patience and the money; granted the existence of such a theatre with people interested in stage designing, the craftsmen knew, if they had time to see the fruits of their work, that they could do great things. At present it seems scarcely worth while. The outlook appeared more gloomy than ever before. There was Gordon Craig, who had been living abroad for the past 20 years instead of speaking and working nearer home; there was dear Lovat Fraser, who had recently been taken from them. He would ask anyone present who was seriously thinking of stage designing as a career to realize that there was no such career open; they might be asked once, they might be asked twice, but they would not be asked a third time.

DISCUSSION.

A short discussion was opened by Mr. Clough Williams Ellis. Among those who took part were Mr. Geoffrey Whitworth, Mr. W. J. Turner, Mr. F. J. Warton, Mr. G. Norman, Mr. Mullin, and Mr. Hamp, the president.

Mr. Rutherston having replied to the vote of thanks and answered the various points raised, the meeting terminated.

Birmingham Architectural Association.

On Friday, January 12, Mr. S. H. Meteyard read a paper before the Birmingham Architectural Association on "Stained Glass."

Mr. Meteyard said that the subject, being a very wide one, could be treated in many ways. There were the historical side, the technical side, and the æsthetic and symbolical side, all of which would take hours to deal with adequately. He therefore proposed to give only a few detached notes on the subject.

"The glass itself," he said, "is coloured in the actual making, in its molten state; any details necessary are then drawn with a dark brown enamel paint and fired into the glass. The only actual stain used is a yellow paint. With this material the craftsman has to make a pattern or design in what is really a transparent mosaic. There is a vast range of possibilities, on the one extreme a mere flat pattern of glass, and on the other a transparent picture, and, as is usually the case, safety and the best results lie in the middle course."

The lecturer divided the making of a stained glass window into two main parts, the imaginative creation and the material production.

In connection with the creative part, he said that a window calls for as much care and thought as any decorative painting on an opaque ground. The colouring is very much a matter of personal taste, and depends largely on the amount of light to be admitted; for instance, in the east window of a church a dark window is an advantage, and this darkness should wherever possible be obtained by dark coloured glass rather than brown paint.

The scale of the work, the regulation of the size of figures and fineness of detail to the distance from which they are going to be seen, is very important; for it is worse than useless to put a lot of fine detail in a position where it cannot properly be seen.

The use of canopies as a form of filling in the background of figures was started innocently enough, being frankly treated as an adaptation of the original sculptured canopy to the glass material. It is an uninteresting way of doing this, and has so much stamped itself upon the lay mind that it is looked upon as absolutely essential to a window of merit.

Speaking of the material production of a window, Mr. Meteyard said that in the old days, owing to the smallness of the pieces of glass used, a very considerable part of the work was covered with lead. As the craftsmen became more expert the sheets got larger and the artists relied more on the paint; however, they always got a glassy appearance until the introduction of enamel colours, when all look of glass disappeared.

The best system of leading was, after the main forms had been outlined, to make the subsequent divisions more or less horizontal, with perhaps a few that could not be so arranged vertical, or nearly so.

The lecturer then described the processes to which the glass was subjected, and stated that there was sometimes a tendency not to fire the painting sufficiently, which resulted in the paint disappearing in a very few days.

Musselburgh Town Council, on the 19th ult., adopted a report from Mr. J. S. Pirie, C.E., of the Edinburgh firm of Blyth and Blyth, C.E., on the method of reclaiming 120 acres of foreshore ground opposite Musselburgh links between the River Esk and West Pans by erecting a sea wall which would be gradually raised, allowing a tidal action to fill in a portion of the site with sand while the making up was proceeding from the landward side. The approximate cost was £36,000. The Council unanimously adopted the same expert's proposal to widen the stone traffic bridge which carries the electric tramways from 35 feet to 53 feet, and ordered plans to be prepared with a view to getting a Government grant towards the cost.

The Old-Time Watermill.—II.

By J. C. Kershaw and Charles G. Harper.

We cannot to-day see that Trumpington Mill, near Cambridge, which was the scene of much in Chaucer's "Reeve's Tale":

> "At Trompington, not far from Cantebrigge,
> Ther goth a brook, and over that a brigge,
> Upon the whiche brook ther stant a melle."

"The Reeve's Tale" is not precisely a part of Chaucer to be discussed in drawing-rooms, even in these outspoken times. It is, indeed, a story well calculated to make a satyr laugh and the judicious grieve. Therefore, from one point of view, it is perhaps as well that we cannot seek it out, and say, "Here the proud Simon, the 'insolent Simkin,' ground the people's corn, taking dishonest toll of it; and hereabouts those roystering blades of University scholars, Allen and John, played their indecent pranks." Grantchester Mill, which stands on, or about, the site of Chaucer's mill, is modern.

But not so modern as to be new. One would guess it to be an eighteenth-century building; one of a type very numerously represented in various parts of the country. That at Brampton is of the like kind, the chief difference between them being that while Brampton Mill is out of business and picturesquely out of repair, Grantchester Mill is (or at any rate was when the drawing was made) a going concern.

GODMANCHESTER MILL.

It is one of those great, eminently prosperous-looking mills which impress the beholder with a sense of the lucrative nature of milling as a trade. And, indeed, looking at the millers' old houses, very often on the scale of country mansions, the grinding of corn seems to have been one of the most profitable trades in the country. A case in point is the great four-square eighteenth-century brick mill at Bedhampton, near Havant; certainly not beautiful, even in these days when it is weatherworn and, it may be, a little decrepit. A little stream, issuant from the Forest of Bere, at this point runs into a creek, moat-like in front of a charming old house, formerly the mill-house, which bears the odd inscription:

> "The gift of Mr. George
> Judge at Stubbington
> Farm at Portsea Hard, in
> Memory of his very good Friend
> Mr. George Champ
> Senr., 1742."

Neglected long before the accompanying illustration was made, Bedhampton Mill has the repute of once having been concerned with smugglers, but I have it on the authority of one who well knew the millers, the Snocks family, who owned the place between 1775 and 1865, that this was not so. They made a huge fortune there, purely as millers, grinding from 400 to 500 sacks weekly of English-grown wheat, and shipping huge quantities of flour to Cornwall in their own barges.

Not many survivors exist in any form of those manorial mills which were a feature of mediæval times when, under the ancient feudal laws, tenants were obliged to send their corn to be ground at the lord's mill. But the representative of such a mill (although it is a structure of far later date, being apparently an eighteenth-century building) is to be seen at Oxford. Rather an obscure corner of Oxford, but highly interesting; where the great Norman keep of the castle built by Robert d'Oilgi yet stands, with the Castle Mill keeping it company, and a rushing, tearing mill-leat still working the machinery as it worked the primitive machinery of nearly nine hundred years ago. That venerable keep-tower, with the battering walls, is roofless and stands within the enclosure of the convict prison of Oxford. It is a social descent from romance to sordid things, but the tower rears itself aloof from such; while behind it is to this day that tree-crested prehistoric mound which was, before the Normans came, the burh, or early stockaded defence of times before mason's work was available.

In some watermills it is often matter for conjecture as to where the mill ends and the granaries and residential portions begin, for mills built originally on a large scale were almost always added to at different periods, and alterations were made also; hence many of the windows appear to have been dotted in haphazard. But it is not true that because these straggling old mills in their generally beautiful setting are ideally picturesque, therefore they were ill-designed and inconvenient. They may be so to-day, but they were exactly fitted for their times, and must have been astonishingly efficient to have been in use

BRAMPTON MILL.

BEDHAMPTON MILL.

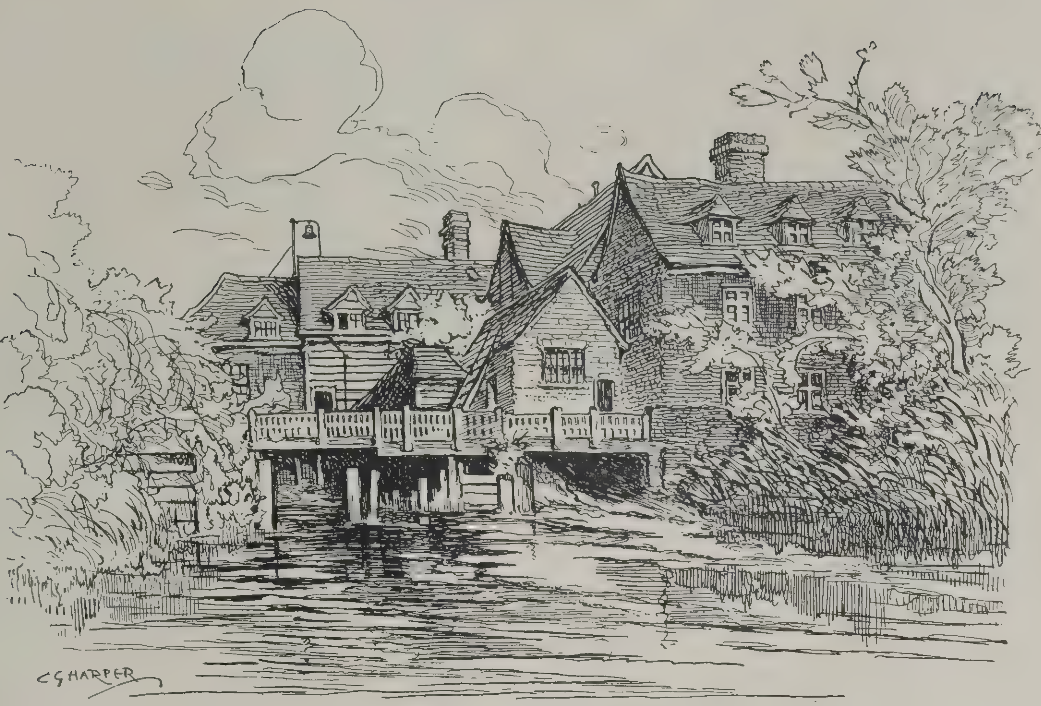
for so many centuries with scarcely any material alteration in their machinery—one might say none: it was the buildings that were altered and added to. They were erected by men who knew little and cared less for comeliness, but built only with a view to utility. That they are beautiful is mainly due to the fact that these builders had to be content with local materials, which were naturally in keeping with that part of the countryside. Also the old-time builder who sawed timber by hand scratched his head more than once before sawing a beam which was but slightly oversize for the job in hand. He adzed and trimmed it a bit and built it in. To-day it would be sawn into three sticks, each of them considerably too weak for safety, and of a mean appearance.

Judging from the very fine trees and shrubbery which usually surround a watermill, their owners must have been disciples or forerunners of Evelyn, who preferred trees to flowers partly because of their utility as timber, but also because they are undoubtedly the nobler natural objects, and have much greater influence on the face of the country. Perhaps there was some idea that the shade of the trees prevented evaporation of the mill-pond. Windmillers usually had nice gardens and shrubbery, but, of course, their motive power precluded the planting of trees, at least in proximity to the mill. Like other structures which fall into line with nature, watermills are beautiful all the year round, and perhaps most so in the winter dear to the Christmas card designers, but which most of us who, like the old mills and millers, are on the ebb tide are sincerely thankful is not an annual institution. But in such a season the place (we are thinking especially of such watermills as those around Huntingdon) is a fairyland—the dark mill with roofs and dormers besnowed, the glinting ice, and above all the extraordinarily beautiful and delicate tracery of the finer tree branches and interlacing twigs, woven against the sky like a fine black meshwork.

The miller's thumb, with continual testing of the fineness of the meal, was supposed to become very broad. There is, we believe, no evidence that it really did so, or that if finger-print experts had existed in those days they could at once have detected a thumb-print as that of a miller; nor would it have been of any use, for all millers are honest men. But the legend gave rise to the popular name of that queer little fish, the "Miller's Thumb" or "Bull's Head," as it is also sometimes called. It is found in most streams, even the very tiniest, and is well known to boys.

WEMBURY MILL.

Perhaps the most ancient watermill still at work in England is the City mill at Winchester, abutting on Soke Bridge over the Itchen. Most of it has been rebuilt, but parts of the sub-structure may perhaps be original. It is



FLATFORD MILL.

still a corn mill as it was in the days of Edward the Confessor. The Itchen is delightfully swift and clear, and a fair depth at Soke Bridge.

Among all the watermills that afford such delightful scope for the artist, Flatford Mill is the best known, and perhaps (now that Fareham tidemill is gone, and since the destruction by fire of Iffley Mill, some twenty years ago) the most painted, photographed and sketched of all. It is on the Suffolk side of the Stour, where that lovely stream divides that county from Essex. It is not merely in itself a charming picture, whether in line or in colour, but it has in addition the exceptional interest of having been the birthplace, in 1776, of England's most characteristically English landscape-painter, John Constable, son of the miller. It is something, indeed, not merely that his birthplace remains, but that it should be one of the most beautiful among the landmarks of what has since most justly been styled the "Constable Country." For the Stour and its villages—Dedham, East Bergholt, Stratford St. Mary, Stoke-by-Nayland, and many another—were sketched and painted over and over again by Constable, who never tired of the quiet and by no means spectacular charms of his homeland. Those unobtrusive beauties are there yet, unchanged. You would recognise most of the subjects of his pictures to-day; and although the once-famous "Essex Great Wheat," which you see, ripe unto harvest, swaying golden in his picture of "The Cornfield," be no longer known, even by name, to most among the Essex farmers, the church tower of Dedham still rises proudly over that Vale; and at East Bergholt the unfinished church tower is such that it might have been only yesterday that he sketched it.

OXFORD CASTLE AND THE CASTLE MILL.

Competition News.

The Bournemouth Corporation offer premiums of £300, £200, and £100 in their competition for the proposed concert pavilion to seat approximately 2,000, with the necessary adjuncts. Sir Edwin Cooper, F.R.I.B.A., will act as assessor. Printed copies of the conditions and site plan can be obtained on and after February 12, on application to the Town Clerk, on payment of £2 2s., which amount will be returned on a *bona-fide* design being submitted. The estimated cost of the building is £100,000.

"The Architect" Fifty Years Ago.

FEBRUARY 1, 1873.

NEW BRIDGE IN PARIS.

Amongst the great new arteries pierced in Paris under the Imperial *régime* was the Boulevard Saint Germain, which terminates opposite the further end of the Isle St. Louis; while the Boulevard Henri IV. commences on the other side of the river, in a line with the former. The two corners of this island are at present connected with the two shores of the river by two small bridges; one for foot-passengers only, now being in a dangerous condition. It has been decided for some time that a single bridge should be constructed from shore to shore, touching the end of the island in the same way as the old Pont Neuf connects the other island, that of La Cité, with the quays.

The cost of the new bridge is estimated at rather more than £120,000, to which is added nearly £20,000 for indemnity, &c., making a total of £140,000. The plan was drawn up some time since; that part of the bridge which is to span the larger arm of the Seine consisting of three cast-iron arches of 42 metres span each, and the other of one arch of 64 metres span.

Our neighbours, always alive to the principles of symmetry and uniformity, seeing that the new bridge will occupy a position analogous to that of Pont Neuf, are not satisfied with the existing plan, and the municipal council are intent upon giving to the two structures a certain character of unity and harmony in their leading architectural features. With this view it has been determined that the principal bridge shall consist of two arches instead of three; this also will give all the three arches about the same span, 63 and 64 metres. The new plan will also place the single pier in the centre of the stream, not perhaps the best position, and far from each shore. The approaches to the bridge will be 30 metres long, with an incline of 0·020 and 0·025 per metre. The final determination of the plan is left to the council of the Engineers de Ponts et Chaussées. This new bridge will supply a great want, and be a striking feature of the Seine.

Correspondence.

A Westminster Monument.

To the Editor of THE ARCHITECT.

SIR,—At the corner of Great George Street and Parliament Square is a fountain, erected in the '60's of the last century to commemorate those public benefactors who advocated the abolition of slavery, of artistic design, reflecting credit on architect and builder.

But although the statues in the square have been cleansed from time to time, it has never been any one's business to extend the cleansing process to this unfortunate fountain, and London soot reigns supreme.

The roof, I well remember, is decorated with ceramic plaques in vivid colours, with bosses in marble, and metallic knights in armour at each angle. It is octagonal in plan.

The inscription was on plates of copper around the centre column, close to the drinking fountain. These were, unfortunately, fixed with ordinary screws into wood plugs, and have been stolen long ago.

Much has been written and said lately as to the desirability of more colour in architecture in London, and yet there is this unique specimen absolutely neglected, although in a position next door to the Palace of Westminster.

Query—What should be done?

JAMES MAY.

24 South Island Place,
N. Brixton, S.W.9.

Revision of Bye-laws.

To the Editor of THE ARCHITECT.

SIR,—Owing to absence from home, I have only just received THE ARCHITECT for January 19, and crave space to refer to one recommendation of the National Federation of House Builders, published in that issue.

I rather differ from your leader writer when he doubts if ordinary building bye-laws could be much relaxed, for I believe there is great room for reduction on the lines of the L.G.B., and Ministry of Health circulars of 1906, 1912, 1918, and 1922.

But I agree absolutely with Mr. Shelley—the leading authority on building law—who, in his recent paper before the R.I.B.A., said that a renewal of section 25 of the Act of 1919 would be as great a disaster as could befall the building trade or the architect's profession.

Under bye-laws of a modern kind—like the 1912 and later editions of the model—any proper mode of construction would be permissible, but section 25 of the Act of 1919, by giving a "soft option" to Councils and Surveyors who will not trouble to modernise their bye-laws, leads directly to their retaining obsolete requirements to the general prejudice.

Yours, etc.,

Weston-super-Mare. E. M. WEBB.

Royal Institute of British Architects.

The following are notes from the minutes of the Council meeting held on January 8.

Registration.—The Registration Committee submitted a draft Bill to the Council. The draft was approved and ordered to be submitted to a Special General Meeting on January 29.

Congress on Architectural Education.—On the recommendation of the Board of Architectural Education it was decided that an International Congress on Architectural Education should be held in London in 1924.

R.I.B.A. Conference at Edinburgh.—The provisional programme of the Conference to be held at Edinburgh, June 13 to 16, 1923, was approved.

Board of Architectural Education.—Mr. Rodney H. Alsop [*F.*] was appointed to represent Victoria, Australia, as Advisory Member of the Board of Architectural Education.

Sessional Paper.—Mr. Geoffry Scott being unable, owing to official duties, to read his Paper on "Tradition and Originality in Italian Renaissance Architecture" on May 28, 1923, Mr. Delissa Joseph has accepted the invitation of the Council to read a Paper on "Building Heights and Ancient Lights" on that date.

Reinstatements.—The following reinstatements were made: As Fellow, T. Butler Wilson; as Associate, Harry Thomas Bill; as Licentiate, Hugh Campbell.

The National Federation of House Builders.

[*We have received a copy of a communication addressed to the Minister of Health by the National Federation of House Builders, whose secretary states that these proposals were very favourably received.*—ED.]

SIR,—I am instructed to write you to confirm the proposals which our officers had the privilege of submitting to you yesterday.

In the opinion of the Federation, the policy suggested in our proposals, by encouraging the investment of private capital once again in house property, will do more to supply housing accommodation for all classes of the people than any schemes of expensive and uneconomic building by the public authorities, and will lead to a rapid return of normal conditions when private enterprise will be able to house the people without State assistance.

Our proposals are as follows:—

1. *For Small Working-class Houses.*

(*a*) That the Government should give a subsidy to the owner of all new houses of approved types built during a certain specified period; that the subsidy should amount to £150, and be paid in cash to the owner of the house, whether it is a local authority or a private person.

The figures upon which the suggested subsidy is based are as follows:—

	£
General average cost, including land, roads and charges..	400
Less State Subsidy	150
Cost to Investor	£250

The house could be let at ten shillings per week, exclusive of rates, and the Federation is of opinion that it is impossible to obtain any higher rent for a small working-class cottage during the next few years. The house could not be let at less than that figure, for the rent has to provide for repairs, decoration, management, insurance and sinking fund, as well as interest on the owner's capital.

(*b*) As an alternative to the grant of a lump sum, it is suggested that the subsidy could be spread over a period of years, and that for houses built by private enterprise the grant would be given by exemption from local rates for that period. An agreed sum per annum could be paid by the State to local authorities in respect of all exempted houses during the exemption period so that existing rate-payers would not be unfairly penalised by supporting exempted property. The extent of the period could be fixed at such a time as would enable the builder to offer an attractive investment to his customer. Ten years is suggested by the Federation.

2. *For Houses for Occupying Owners.*

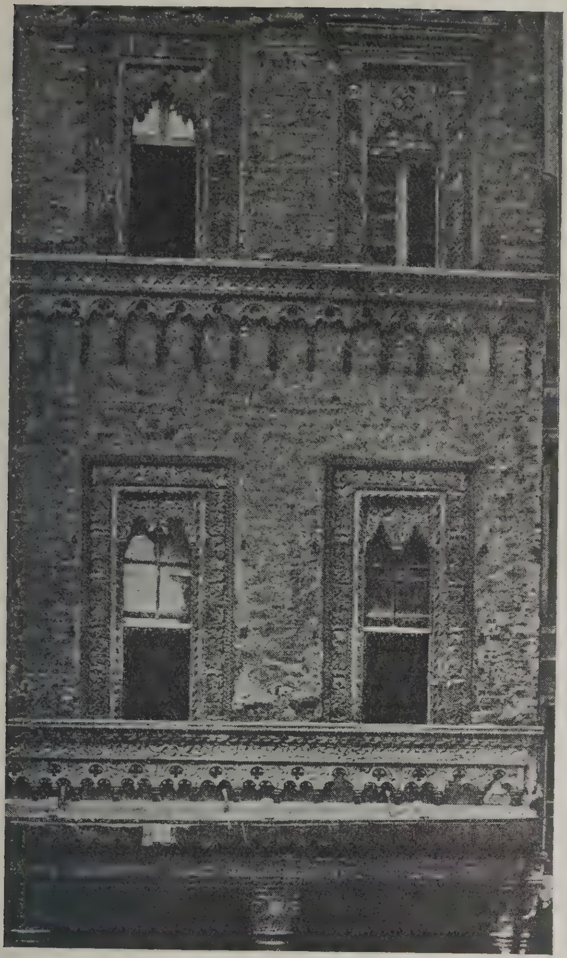
In order to provide houses for that class of citizen who is willing to purchase his own house and who can find some small amount of capital, it is proposed:—

(*a*) That the mortgagee, whether building society or bank, should advance 90 per cent. of the value of a house to an occupying owner on the usual repayment terms adopted by building societies, and that the Government should guarantee the mortgagee against loss to the extent of the amount advanced in excess of the usual proportion of about 75 per cent., the State guarantee to expire when the mortgage is reduced to a certain agreed amount. By this means, many thousands of people would be able to secure a new house who cannot do so now because they are unable to find the amount of capital required to make up the difference between the price and the building society's limit.

(*b*) That persons should be further encouraged to buy houses for their own occupation by extending the exemption from local rates to all new houses not exceeding £50 in assessable value for a period of ten years from the date of completion.

There are other matters which seriously affect the building of houses, and these are outlined in the suggested National Housing Programme which we have had the honour to submit to you, but it is felt that the above measures are the most vital and pressing, and if the Government can adopt them, houses will be built in the greatest number and under the most economical conditions which the house-building trade can devise.

I am, Sir,
Your obedient servant,
NORMAN MCKELLEN,
Secretary.



PALAZZO DEI MERCANTI, MANTUA.

Mantua: Her Story in Art and Architecture.

By Selwyn Brinton, M.A.

V.—The Duel between the Gonzaga and Visconti of Milan.

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In the last number of this series we traced the establishment of the dynasty of the Gonzaghi at Mantua, under the able guidance of Luigi Gonzaga; the perils which awaited the city from the overpowering strength of Milan under the Visconti, who threatened in those days to become masters of the whole of north Italy, and the successful weathering of that storm by Luigi Gonzaga, Captain General and Lord of Mantua, concluding with that leader's death in his ninetieth year in 1360. In the present notice we shall follow the further strengthening of the Gonzaga power within the city and without, and the creation of those buildings which gave Mantua her special features as a city of art and architecture.

But first I have to mention an event which came near to destroying both the Gonzaghi as Lords of Mantua, and with them the independence of the city itself; the form this took was one of those frightful domestic tragedies which were unhappily so frequent in the story of these Italian despotisms, which fascinated the imagination of our own dramatists of the Shakespearean time, and of which Milan and Ferrara, as well as Mantua herself, offer some terrible instances. I cannot give it to my readers better than in the words of the old chronicler, brief but sufficient. It will be found—especially on consulting the family tree of the Gonzaghi, which I hope to publish in the next article of this series—that Luigi Gonzaga, first of the dynasty, had a numerous family, no less than eight sons and two daughters; his eldest son, Guido, took his place as Capitano, who, however, says Mario Equicola, "left willingly the care of the rule of Mantua to Ugolino, not without hatred and envy in the minds of Lodovico and Francesco." This Ugolino, son of Guido, had been married to Caterina Visconti, only daughter of Matteo Visconti, as part of the peace contract with Milan, and Lodovico and Francesco were his younger brothers. "Now in 1362," says our chronicler, "the plague was very fierce in Mantua, and Lodovico went with Francesco, both brothers of Ugolino, to stay at Castiglione Mantovano, and commenced there to murmur together against Ugolino, who alone had lordship in Mantua, and they with no share or management in it. Hence they resolved to kill him, and, coming to Mantua, put their purpose at once into effect. For on the 14th of October (in 1362) Lodovico went to supper with Ugolino, and at the supper's end there joined them Francesco, who, entering the room with a rapier (*con uno stocco*) struck Ugolino in the breast, and Lodovico, drawing his sword, struck him in such wise that he died. Lodovico and Francesco then took over the rule of the city, and Bernabò (Visconti of Milan, uncle to the murdered man's wife, Caterina), hearing what had happened, bid his niece return home to him, since he had the firm purpose to avenge Ugolino's death."

In these brief words, tense with action, we see the whole tragic scene pass before our eyes—such a scene as John Ford or John Webster would have transformed into one of their Italian tragedies—the old castle of the Gonzaghi at Castiglione, the supper party, the victim decoyed by wine and talk, the entrance of the brother, the blow, the murder completed by both, the terrified bride escaping to her kindred in Milan. Nor was vengeance long in coming. For, waiting his chance, Bernabò Visconti received a letter from Cane della Scala, Lord of Verona, "that he did well to take vengeance against the Gonzaghi for the death of Ugolino, husband of his niece, and that he, Cane, would give him all aid in his power to achieve the destruction of the House of Gonzaga." Then Bernabò saw his chance had come, and, on Holy Thursday of 1386, swept down into the Serraglio of Mantua, taking castles and prisoners, and pushing on to Borgoforte, while his armed vessels thence swept the river Po, and drove before them the levies of the Estensi of Ferrara. But a peace was arranged and cemented by another marriage, that of Bernabò's own daughter, Agnese, to Francesco Gonzaga, with 50,000 golden florins as her dowry.

But the danger was by no means past, and it came again to a head when that remarkable man, the terrible Conte di Virtù, Gian Galeazzo Visconti, entrapped his uncle Bernabò, seized supreme power at Milan, and commenced in earnest the conquest of northern Italy. It was a struggle for life and death, the freedom of the Republic of Florence, and all Italy with her, in the balance; and Florence, with Mantua and Bologna as her allies, under the leadership of the great English Condottiere, Sir John Hawkwood, after a long and varying contest, came through at the end still free and victorious. The Most Serene Republic of Venice, after Gian Galeazzo's death from the pestilence which was ravaging Italy, had offered Francesco Gonzaga the post of Captain General of her armies, and as such he captured Verona (1405) and besieged and captured Padua (1406).

This latter fact is of special interest as marking first the connection of the Gonzaghi with Venice as Condottiere, or paid leaders of Italian armies, a connection which will again come before us in the great days of Isabella d'Este and her Gonzaga husband. And to this time now before us belong the creation of the great churches of Mantua, the Gothic façade of S. Pietro, and that of the old church of S. Andrea at Mantua (1405) as well as its beautiful campanile. Later we shall see these Gothic buildings transformed into two famous Renaissance temples, that of S. Andrea remodelled by Leo Battista Alberti, and of S. Pietro by Raphael's pupil, Giulio Romano, in those glorious days for Mantua of the full Renaissance. But we are still in the Gothic period of Mantuan architecture, of which I give an illustration in a most beautiful Gothic Palace; and it was in this time of war with Milan that Francesco Gonzaga had built the bridge of Borgoforte and the castle and bridge (1395) of S. Giorgio, which cuts the two lakes in twain.

The Birmingham Civic Society.*

In this description of the constitution and work of the Birmingham Civic Society, I believe that you seek information which will help towards similar work being done here in Manchester by a Society of your own—possibly by this Federation. I shall therefore give you as faithful a record of our work and methods as is possible in the time at my disposal, first by verbal description and afterwards pictorially upon the screen.

It will be difficult to give my address coherence, but I will endeavour to be as little discursive as possible in dealing with a subject which so readily branches along attractive byways; and to get rid of some of these asides at the outset I will sketch quite briefly the general modern movement towards civic betterment of this character, before taking in more detail the work with which I have been actively associated.

In 1890 (twenty years before the first civic society appeared in England) the first Municipal Art Commission was established at Boston, U.S. It is not implied by this comparison of dates that the first stirrings in this phase of civic consciousness in England were twenty years behind those of America. The somewhat tardy employment of civic societies here is partly explained by our activities in other sections of civic awakening and partly by our national psychology, which is not easily moved to corporate expression in matters of this kind.

This reluctance is very marked in connection with Art Commissions, of which the first British example has been set up recently in Birmingham, and for the better understanding of which I purpose to say something more of its American prototypes.

The first such Commission appears to have been established by a Boston law of 1890, which authorised the setting up of a jury to which all the works of art for municipal ownership must be submitted for approval before acceptance. This experiment in the legal control of amenity was wisely restricted to particular classes of works of art, and made no attempt to influence the character of design in structure.

The next step in the same direction, and on a similarly experimental basis, was taken by the City of Baltimore in 1895. The Mayor, and seven members representing local cultural bodies, being elected to serve as Commissioners for the purpose of controlling the erection of statues, fountains, arches, monuments or memorials of any kind to be erected in any public place or municipal building; or any variation in any such existing works.

Boston enlarged its powers in 1898, when it was provided that the Commissioners should be five in number, appointed by the Mayor from lists supplied by selected art groups. The time of service to be for five years and a change of personnel to be made each year by the automatic retirement of one member. Power of veto was taken upon all municipal paintings, mural decorations, statues, bas-reliefs, sculptures, monuments, arches, ornamental gateways and other structures of a permanent character intended for ornament or commemoration, all of which had perforce to obtain the sanction of the Commission before acceptance. The Commission also acted, when requested by the Mayor or the City Council to do so, with respect to "any municipal building, bridge, approach, lamp, ornamental gate or fence, or other structure erected or to be erected upon land belonging to the city, and in respect of any arch, bridge, structure or approach, the property of any corporation or individual, and extending in, over or upon any street, avenue, highway, park or public space. These powers constitute in effect a control of all purely decorative art for public purposes and, subject to a request by the local authority, a control of all amenity in public structure.

New York set up its first Commission in 1898, and extended its powers in 1901 and 1907. In the original Act it was thought wise to follow the lead of Boston and Baltimore, and to be conservative, in view of the experimental nature of the work, for which reason the mandatory provisions of the 1898 Act only applied to paintings, sculptures and purely decorative works. Later, these mandatory powers were extended.

The following notes on the work of the New York Art Commission will probably be a sufficient indication of the establishment and working of similar commissions in other cities of America: The first few years were difficult. The Commission had no permanent quarters, and met in the homes and offices of various members (a usual and very undesirable condition with young commissions and civic societies). In 1902, however, offices were provided in the City Hall, the Municipality took over the cost of administration, and at the same time an executive officer, clerk and typist were appointed. It was at this time that the jurisdiction of the Commission was extended to cover all public structures built wholly or in part upon public land; also upon the lines, grades and plotting of public ways and grounds, the only exception being that when such structures cost $350,000 or less, the Commission may be requested by the Mayor or the Board of Aldermen not to act. Such a request has never been made.

As the Commission showed willingness and ability to function effectively it gradually became the custom for the Mayor to refer to it all *important* structures, and later practically *all* structures. Hence the various extensions of power already referred to, which have merely put into legal form what had already become a common practice.

During its first four years the Commission received an average of six submissions annually, but in 1907 (the ninth year) 168 submissions were dealt with, and in the year 1912, 263. Increases which tell their own story.

In conclusion of this section it may be summarised that by 1912 there were 17 Art Commissions in America, ranging in power from an advisory capacity (as in the case of the National Commission at Washington or that of the City of Charleston) to the fully organised New York Commission, which forms part of the city government and has power to approve or disapprove both municipal and private projects.

In addition to the above there is a Civic Association in America which represents the local activities of 200 cities, but whether their programme of work is similar to that of the English civic societies I am unable to say.

I come now to that phase of civic betterment in this country which may be regarded as within the province of civic societies, and I believe I am right in saying that "The City Guild" of Liverpool, inaugurated in 1910, stands as the first body of this kind to be formed in England. The Guild apparently made a good start in membership, but during and since the war it does not appear to have been very active.

"The London Society," founded in 1912, has from the outset had the support of many very distinguished people, and of such public bodies as the Royal Academy, the Royal Society of Arts, the Royal Institute of British Architects, the Royal Society of Sculptors, the Surveyors' Institution and the Incorporated Society of Municipal Engineers.

In its first year 400 members were enrolled, some of whom appear to have fallen away during the war, but in 1919-20 the membership more than doubled, and this rate of increase has probably been maintained, since it has been fully justified by the excellent work accomplished, including as it does the wonderfully interesting and useful development plan, and also the recently published "London of the Future." With a subscription list in 1920 of £550 a year, and a life membership reserve fund of £536, the Society has apparently got well away from the cruder forms of financial difficulty.

Civic societies now exist in Birmingham, Cardiff, Chesterfield, Glasgow, Leeds, Nottingham and Sheffield, and I believe in one or two smaller places. Some are just formed, some have been established four or five years, and some, no doubt, are more or less in that state of suspense which ensues when the warmth of good intentions is brought in contact with the apparently insoluble apathy of a Philistine public and its representatives.

A new civic society in the provinces has more than its share of difficulties. I suppose the number of other societies that fail to "make good," even when the objects in view are mildly or frankly selfish, must be very high. The professional associations of provincial towns, for instance, with their automatic agenda of business happenings, are sometimes quite difficult to hold together, and it is naturally much more difficult to maintain an interest in the pursuit of abstract beauty. Yet, if civic work of this kind is unusually difficult, it is also unusually important, and there are encouraging signs that the difficulties will rapidly grow less now that public opinion is veering towards an increased interest in urban amenity.

In the matter of policy it may be noted that two methods of procedure are possible for civic societies—the public may be aroused by propaganda to require the support of their municipal representatives for a clearly defined policy favourable to amenity (a line of action which it is possible might involve some change of departmental personnel) or, alternatively, they may work as an advisory body in association with existing conditions, when those conditions are sufficiently friendly towards the objects in view.

The first method has certain obvious advantages and is much used in America, but English psychology and municipal conditions will usually suggest the second method for adoption in this country, if local authorities and their officials are sufficiently open to this sort of collaboration.

Speaking generally, we in Birmingham have been as fortunate in the reception of our overtures as we had any reason to expect, and our results are a tribute both to municipal administrative capacity and our own ability to put forward ideas in such practical terms that they deserve and receive respectful consideration.

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* An Address delivered to the Manchester Art Federation by Mr. William Haywood, Hon. Sec. Birmingham Civic Society, Hon. Sec. Birmingham Advisory Art Committee.

The Birmingham Society (founded in 1918) has not so far aimed at a large membership. It was an early decision of the Council that we should test our opportunities, and our ability to meet them, before going to the public for support, and we have been able to do this largely by virtue of a grant of £300 a year from the Birmingham Common Good Fund.* This grant to the Civic Society is made from year to year, and while it is not regarded by the Trustees nor ourselves as permanent, the probability is that it will continue while we need and deserve it.

Respecting the important matter of office equipment, those of you who saw Professor Abercrombie's article on "A Civic Society" in "The Town Planning Review" for April 1920, may remember the following reference to the need for a full-time secretary and independent quarters. He says: "It is absolutely essential for the work of the Society that there should be a permanent and paid secretary, and an office, however small, should be obtained. It is a great mistake to attempt to make business men responsible for the secretarial work in connection with a civic society. Nor is a part-time secretary sufficient; besides the purely secretarial work there is the continuity of the Society's action, which can only be maintained and stimulated by having someone whose sole object it is to keep it going. The somnolence which has crept over certain civic societies can be directly attributed to this absence of a permanent secretary, for, when any job of work occurs, a committee of busy men is apt to find excuses for shelving it, if on their shoulders the burden alone falls. On the other hand a few minutes of advice from these same members of the Committee is sufficient for the secretary's guidance."

This is most true as regards offices, and in its first year the Birmingham Society took two rooms for committee and secretarial purposes, which we regard as a quite essential provision although a heavy charge upon our resources, but I am not sure that I agree with Professor Abercrombie with respect to the secretary. We have failed with two and the fault was not altogether, I think, with the secretaries. My experience suggests that an honorary standing is almost essential when seeking interviews with influential men in order to submit to them well-meant but unsought opinions; such interviewing and many other matters are urgent and could not wait for council sanction, nor for the approval of a member of committee; moreover, an extensive technical knowledge is of vital importance when making one's first approaches, in order to influence on the spot matters susceptible of alternative action. In these and other ways the professional secretary is handicapped, so that I very much doubt his ability to maintain continuity of action, where there are no precedents to guide him and no agreed or recurring order of work established. One could say more on this matter, but it is enough for my present purpose, that partly for these reasons and partly because the Birmingham Society had need of the money for more urgent purposes, a typist was engaged in 1920 and all other secretarial business was given to the hon. secretary.

It now remains to preface my notes on the work of the Society by a statement of its general aims. These are as follows:—

No. 1.—To stimulate historical interest in the city and to preserve all buildings and monuments of historical worth.

No. 2.—To preserve all objects of beauty and to maintain a vigilant opposition to all acts of vandalism.

No. 3.—To promote a sense of beauty and to stimulate civic pride in the domestic and civic life of the citizens by urging the adoption of the highest standards of architecture for domestic buildings, offices, warehouses, factories, etc.

No. 4.—To work for a more beautiful city:—

(a) By advocating the public acquisition of land for the provision of open spaces for recreative purposes, parks, parkways, squares, gardens and ornamental features at road crossings, etc.

(b) By assisting with advice any scheme or works controlled by public bodies, ranging from town planning to designs for parks, bridges, fountains, memorials, shelters, seats, lamp standards, tramway masts, and the like.

(c) By co-operating with the Education Committee and Training Guilds for the development of local art and helping to co-ordinate the efforts of existing societies by uniting architectural, engineering, artistic and handicraft groups in a common aim.

No. 5.—In addition to influencing the work of others, to select suitable projects to be carried out by the Society itself.

No. 6.—The Society shall seek to carry out these aims by means of newspaper and other propaganda, including exhibitions, lectures, competitions, etc.

In working out this programme, contact with the City Authorities (other than that established by the Lord Mayor as President and the annual election of two members of the City Council to serve on the Council of the Society) has been kept green by the occasional purchase of open spaces for presentation to the city as recreative areas. The last purchase of 42 acres, adjoining Mr. Chamberlain's residence at Highbury, having just been completed, the land being conveyed to the city with an agreement that the Society is to be consulted in the lay-out and treatment of the grounds. These purchases were made possible by the generosity of anonymous trustees who placed £15,000 at our disposal for this purpose in 1918.

From the first the Society has worked hard to get every phase of recreation in the city co-ordinated and reduced to a system, with a view to providing proper facilities for those areas at present neglected, especially in the centre of the city. A resolution to the Lord Mayor from one of several meetings resulted in invitations from the City Parks Committee to representatives of various organisations to discuss our suggestions, and a Special Committee now exists to consider and report upon the whole question of recreation in its broader aspects, a work which is held up at present by lack of funds, the trust money in our hands not being available for this purpose.

Another of our park activities is associated with a scheme for the special treatment of a road junction (agreed to by the Public Works Department) which includes the provision of a new entrance to our principal suburban park. Lord Calthorpe, the local landowner, is giving two corner sections of land (about one acre) and the Society has allocated £1,000 towards the cost involved in special features of the scheme. This work is likely to be carried out at an early date as part of an unemployment scheme.

Two "Park Guides" have been published, one of the Lickey Hills reservation, which is now in its third edition; and one of Sutton Park, recently issued; these Guides are in great demand. We publish without profit. We exclude all advertisements and we take pains to make these and our other publications carry the message of amenity which we exist as a Society to inculcate.

A gold medal is awarded annually by the Society to the author of the work judged to have added most to the recent amenities of the city. This award was intended originally to be given to the best street façade, but such a limited application would have resulted in far less significance for our award than it now has. The fact that the bronze medal of the R.I.B.A. is awarded to façades in London is no authority for similar action in the provinces. Sectionalism is necessary there; but in other than metropolitan areas such sub-division would be weakening, especially when practised by civic societies.

Our first award, in 1921, went to music in the person of Mr. Appleby Matthews, conductor of the Municipal Orchestra, and our second to Mr. Barry Jackson in recognition of the high civic importance and artistic distinction of his work at the Repertory Theatre. In each case the ceremony of presentation was given a definite civic character, and it is already evident that this public recognition of noteworthy service to the higher life of our city is warmly approved on all sides.

In such matters as the design of street decoration for public ceremony, the City Authorities willingly seek our aid, and sought our help when staging the Armistice ceremony in 1921 and 1922. The scheme prepared by the Society for this occasion arranged the several factors of the *ensemble* in suitable relation one to another, leading naturally to a massed arrangement of coloured silks draped from the podium of the Town Hall to the ground, with a pedestal for floral tributes below and a rostrum for the city's representatives under the colonnade above. Time, money and materials were short, but we succeeded in giving a dignity to the occasion which it had previously lacked. It is now quite usual for the Society to be consulted on occasions of similar character.

Another phase of our work is represented by a project for the preservation of the old village of Northfield, within the South-West Birmingham town planning scheme. This work had the sympathetic support of the Public Works Department during its preparation, and the proposal eventually put forward now forms part of the town plan. Moreover, a photographic record of the village having been made and its history written up, the work was published as one of our brochures.

Schemes of this kind have a special importance to-day, for they illustrate very clearly the need for preserving such picturesque buildings, villages and natural scenery as remain about our cities, at a time when rapid building developments may thoughtlessly destroy them.

I need do little more than indicate by name such obvious civic work and propaganda as the organisation of exhibitions, lectures on civic subjects by first-class lecturers, committee work on memorials and housing, work on smoke abatement, advertisement control, designs for street accessories, and an attempt to initiate peripatetic lectures in our Art Gallery. In these and similar matters we play our part, which for some of us means rather an appalling amount of work, for although our proceedings are as brief as we can make them, there is nevertheless much time spent in unavoidable debate, that would be much better employed in producing the thing discussed, if that were possible.

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* A Municipal Trust established by Alderman George Cadbury in 1917 and controlling at that time an Endowment Fund and Amenities Fund of £10,000 and £3,000 respectively. These amounts have since been very greatly increased.

Perhaps our greatest work is the recently established "Advisory Art Committee." The setting up of a committee of this character was first put forward by the Birmingham Architectural Association in 1917, but looking back upon that time it is easy to see that circumstances were not then ripe for such an experiment.

The intervening five years of advocacy by the Civic Society have been years of increasing knowledge of municipal affairs on our part and an indispensable preliminary to sympathetic co-operation with the City Authorities. It is evident, too, that in this interval of time a certain hesitation on the part of the City Council has changed to trust and goodwill, without which such a Committee as this could scarcely hope to be effective.

Nor do we imagine that the setting up of such a Committee is an end in itself. It exists as an instrument for work to be done, and the use we make of it will be the measure of our success.

The nature of the Committee is best understood from the clauses of its constitution, which have been recently amended and now read as follows:—

1. The Committee shall consist of not more than twelve *ex-officio* members, and shall have power to co-opt four additional members, who shall be selected for technical knowledge in art matters. The election of such members shall be made at the first meeting in the year, and they shall serve for not more than two* years consecutively.

2. The following shall be *ex-officio* members of the said Committee:—The Lord Mayor, a representative of the Birmingham Public Works Committee, a representative of the Education Committee, the City Surveyor, the Vice-Chancellor of the University, the Principal of the University, the Director of the School of Art, the Director of the School of Architecture, the President of the Birmingham Architectural Association, the Chairman and the Hon. Secretary of the Civic Society.

3. The Committee shall elect a President and Hon. Secretary from its own members whose term of office shall be for one year.

4. The Committee shall have power to adopt its own rules of procedure and three shall form a quorum.

5. The findings of the Committee upon all matters submitted to it shall be in the nature of recommendations only.

6. The Committee shall hold all matters submitted to it in confidence. No matter referred to it shall be divulged and no report of its proceedings issued, except by previous agreement with the Corporation Committees concerned.

7. The Committee shall in ordinary circumstances report upon any matter submitted to it within 36 days, provided that any submission after the 12th of the month shall be dated as received on the 1st of the month following, but shorter periods may be arranged with the Departments concerned for reports on urgent work, or an extension of time may be arranged where there is no urgency.

8. Hereafter all such new designs for public buildings, bridges, lamps, gates, fences, public conveniences, or other structures to be erected upon land belonging to the city, all such proposals for planning and laying out new parks or park extensions, all such new statues, fountains, arches, monuments or memorials of any kind to be erected in any public street, square, park or municipal building, as may be selected for submission to the Advisory Art Committee by the City Departments concerned, shall be reported upon by the Advisory Art Committee.

You will notice that we are still as it were on probation. The City Authorities reserve the right to accept our advice or not; they also submit their proposals to us at pleasure; but we are anxious to make no false step in a matter of such far-reaching importance, and it is for us to so prove our capacity by the advice we give that we shall accomplish out of deference to our wisdom that which we have no power to enforce.

Such new methods as these are best put in motion gradually, and if you recall my references to early caution and subsequent activity in America, you will see that we have taken an equally reasonable course and that success is very largely our own affair.

Clause 6 of the Advisory Art Committee's constitution stipulates that no details of its work shall be divulged, but I may say in quite general terms that the spirit of co-operation between the Committee and the City Departments is excellent, that we already have much work to do, and that one of the greatest pleasures in doing this work comes from the knowledge that it has an immediate bearing upon actualities.

Board of Architectural Education.

The Intermediate and Final (and Special) Examinations will be held this year (1923) on the following dates:—

INTERMEDIATE EXAMINATION.

June 1, 4, 5 and 7, 1923. (Last day for receiving applications, April 28.)

November 23, 26, 27 and 29, 1923. (Last day for receiving applications, October 27, 1923.)

FINAL (AND SPECIAL) EXAMINATIONS.

June 14, 15, 16, 18, 19 and 21, 1923. (Last day for receiving applications, May 5.)

December 6, 7, 8, 10, 11 and 13, 1923. (Last day for receiving applications, November 3.)

The Council R.I.B.A. have resolved that candidates who have sat for and failed to pass the Special War Examination shall be allowed to sit for the Special Final Examination (without the submission of Probationary work) at any time before the end of 1925.

Candidates who have failed in the Special War Examination on only one occasion will not be required to pay a further fee for one attempt at the Special Final Examination, but candidates who have failed at the Special War Examination on more than one occasion will be required to pay the ordinary fee for the Special Final Examination—viz., £10 10s.

London County Hall Acoustics.

In order to overcome the admitted acoustic defects of its Council Chamber, the London County Council last week resorted to an experiment which is probably unprecendented in any public building. An electrophone was installed, with wires extending from the clerk's table to the Press Gallery and receiving instruments to some half-dozen of the reporters.

The result was not entirely satisfactory. Quite a disconcerting increase in the volume of sound was obtained, but clearance of utterance was impaired rather than improved.

It appears, however, that the microphone fitted to the clerk's table was really only intended to amplify the observations of the chairman and the clerk, and the company responsible for the installation claims that efficient rendering of all the speeches could be secured if a series of microphones were installed at different points in the Council Chamber. The Establishment Committee of the Council will now presumably consider whether such an expense would be justified.

Meantime the consensus of opinion in the Press Gallery is that if audition were rendered perfect, the wearing of metal receiving instruments on the head involves too much physical inconvenience to make the scheme successful from the reporters' standpoint. Apart from that, the sounds—clear or otherwise—are far too sonorous to be borne in comfort for any length of time. If the apparatus were permanently installed, pressmen would probably be found discarding their instruments in sheer surfeitude long before the Council's sittings had terminated.

A "Safe" Film.

Somewhat in the manner of a conjurer who yet more mystifies his audience by "showing how it is done," Messrs. Chubb & Sons' Lock and Safe Company, Ltd., have prepared a film illustrating recent developments in bankers' security appliances. This film, which was made at their works at Wolverhampton, was demonstrated at a luncheon at the Hotel Victoria last week. Sir George Hayter Chubb, Bart., in the chair, said the constant aim of the company during the century and more of its existence had been the preservation of valuables from the hands of the too enterprising burglar. In fact, the firm regarded itself as a preventive or reformative institution.

One factor at any rate in the firm's confidence is due to the fact that they employ a new metal of an entirely novel character not used elsewhere, and of which the secret rests with their metallurgical chemist. This metal, called "Chubb Alloy," resists the action of the oxy-acetylene blowpipe; it can neither be broken nor drilled.

The film illustrated in a most informative fashion the building of one of their banker's strong room doors, from its inception in the drawing office to the last scene showing the time lock being wound and the door closed and locked. One section of it showed the Chubb alloy impervious to a blowpipe flame which melted almost instantly ordinary mild steel.

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* Length of time not yet finally agreed.

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Building Trade Crisis.

A conference was held in London on the 19th ult. of the Executive Committees of all the unions affiliated to the National Federation of Building Trade Operatives. The following statement, issued after the meeting by the president and secretary of the Federation (Mr. George Hicks and Mr. R. Coppock), sets forth the point of view of the executives :

"A central committee has been set up, consisting of the emergency committee of the National Federation, with one representative from each affiliated union, to deal with all matters arising in the event of a dispute and to arrange propaganda and deal with other matters which it will be necessary to place before the affiliated membership.

"The unions have decided to pool the whole of their national organisers to be at the disposal of this committee, and to be utilised in any area where their services are most required.

"A deputation has been appointed to meet the General Council of the Trade Union Congress next Wednesday (January 31), to place the full facts of the situation before that body.

"We believe that the Federation of British Industries is behind this suggestion of longer hours, and we consider that the whole of the trade union movement should be made aware of the demands, in order that support of the trade union movement may be enlisted. We believe it is only part of a general attack on trade union standards. Other industries are being attacked in different ways and at different times.

"On the resumption of Parliament a meeting will be requested between the Labour members of Parliament and the representatives of the building operatives in order that the Labour members may be made fully aware of the position.

"While this central committee has been set up it does not in any way interfere with the functions of the elected representatives of the Federation on the Wages and Conditions Council, but will at all times be the negotiating medium between the operatives and the employers.

"We are still hoping that the position is capable of being negotiated without any disturbance taking place in the industry.

"We understand that the employers are meeting next week and there may be a suggestion put forward from that meeting which will lead to further negotiations. That, of course, we shall entertain."

Mr. Stephen Easten, of Newcastle, past president of the National Federation of Building Trades Employers of Great Britain and chairman of the National Wages and Conditions Council, speaking on the 20th ult. at Sunderland on the position in the building trades, said the outlook was serious. They had been met in their National Wages and Conditions Council by a blank refusal to negotiate any other terms than those now existing. He was not without hope, however, for in the past there had been reason, and very often generosity, on the part of the men. It was disagreeable to have to reduce one's standard of living, and to that extent the workers had his strongest sympathy. If he did not think it was imperative, and in the worker's own interest, he would not be such a strong advocate of the position he had taken up.

Mr. George Hicks, president of the Federation of Building Trade Operatives, speaking at Hanwell, said it was impossible to accept the masters' demands for a reduction of wages and lengthening of the working weeks. He anticipated that a strike would ensue, and he appealed for national solidarity. In his opinion, the Federation of British Industries was behind the movement for a reduction of wages and increased hours, and he was appealing to the Labour movement generally for support if the operatives resisted it.

Federation of British Industries and Labour.

The Federation of British Industries has for some time past been the object of attacks on the ground that it is conducting a campaign for the lengthening of working hours and the reduction of wages.

In view of these attacks the Federation wishes to state categorically that any such suggestion is utterly untrue. The Federation is precluded by its constitution from taking any part in regulating the relations between employers and employed. It deals solely with commercial, financial and technical questions, in regard to which it promotes the interests of its members, and, therefore, also of their workpeople.

Questions affecting the relations between employers and employed are dealt with by other and completely independent parties.

The Ferry Committee of the Middlesbrough Corporation have approved a scheme for the construction of a ferry landing and docks, at an approximate cost of £20,000.

General.

Sir Ambrose Poynter, Bart., F.R.I.B.A., and Mr. George H. Wenyon, F.S.Arc., have moved from Grafton Street to 51, South Molton Street, W.1.

It is proposed to erect a lecture hall adjoining the Stanley Trade School in Croydon at a cost of £16,000, the money to be defrayed by the Denning Trust.

Mr. Francis B. Andrews, F.S.A., A.R.I.B.A., is preparing plans for the construction of a gallery on their lecture theatre for the Birmingham and Midland Institute. The cost may be about £4,000.

The death has occurred at Dorking of Mr. William Goddard, senior partner of the firm of Messrs. Goddard and Sons, builders, Farnham and Dorking, aged 75. The firm specialised in ecclesiastical building, and erected something like 200 churches in the country.

Mr. A. S. Parsons, chief assistant engineer and surveyor to the City of Birmingham, has been appointed to the borough surveyorship of Reading (in succession to Mr. J. Bowen, who has been appointed consulting engineer and surveyor), and has accepted the position. There were about 100 applicants.

The Hull Corporation Housing and Town Planning Committee have agreed to push forward the New George Street improvement scheme. Under the scheme, which includes the erection of flats, accommodation for 607 persons of the working classes will be provided. The total financial estimate amounts to £91,896.

The Underground Company has placed a contract with Messrs. Waygood, Otis (Ltd.), for the installation of three escalators at the Bank Station, Central London Railway. The cost will amount to £29,650. Other big works are in contemplation at this station with a view to improving the traffic facilities.

"The Atmosphere of the Picturesque" is the subject of a public lecture with slides by Mr. Maurice B. Adams, F.R.I.B.A., announced for Monday, February 5, at the Hampstead Central, Finchley Road, N.W. The chairman will be Mr. William Woodward, F.R.I.B.A.

Messrs. Adamson & Kinns, of London, have prepared plans for a new public hall, which it is proposed to erect in New Bridge Street, Newcastle-on-Tyne. The architects estimate that the cost of the whole property, land, building, equipment, and expenses up to the time of opening for business, will be approximately £68,500.

Sir Banister Fletcher, F.R.I.B.A., on Wednesday last, at 6 p.m., commenced a course of nine lectures on "English Renaissance and Modern Architecture," under the auspices of the University Extension Board of the University of London, South Kensington. After dealing with the character of Elizabethan and Jacobean Architecture, Sir Banister will pass on to the work of Inigo Jones, and of Sir Christopher Wren (with a special lecture on St. Paul's Cathedral). The lectures, which will be given at the Central School of Arts and Crafts, Southampton Row, W.C., will be fully illustrated by special lantern slides, and by photographs, diagrams and models.

Trade Notes.

Boyle's latest patent "Air-Pump" ventilators have been applied to the Masonic Hall, Ballymena. Supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

David Harcourt, Ltd., of Birmingham, have removed from Moseley Street to Linkula Works, Theodore Street, where they have installed electrically driven plant of the most modern type for the manufacture of their patent spun rivet copper chain for window sashes, etc.

The services of Major Arthur Crook, O.B.E., until recently Chief Inspector of the Fire Services of the Army and Royal Air Force, are now placed at the disposal of architects requiring expert co-operation in fire protection matters by the Pyrene, Co., Ltd. It is the object of this company through its fire engineers to co-operate with architects in the devising of schemes of fire protection capable of dealing with the specific risk of any building. Applications for this service should be addressed to the Company's head office, 9, Grosvenor Gardens, London, S.W.1.

Messrs. Raphael Tuck and Sons, Ltd., have inaugurated a competition to further the campaign for obtaining a halfpenny postage on picture postcards bearing five words of any kind, and not merely for courtesy or convention, to which they are limited at present. The sum of £5,000 is to be distributed in prizes for the best answers to any or all of three questions bearing upon the point at issue. The answers must be written on Tuck's cards only—the latter being divided into four classes, to each of which 250 prizes are alloted. Class 4, for example, are their "Oilfacsim" postcards which are said to be the last word of their kind and unquestionably are capable of most excellent results.

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THE ARCHITECT

FEBRUARY 9, 1923

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The Reasonable Course.

We are not surprised at the unanimity with which the Council of the R.I.B.A. is condemned at the moment, because defeat is seldom popular, however that defeat may have been brought about. But we assert, unless it can be shown that the electorate of the R.I.B.A. did not know their minds last May, that there was an overwhelming majority against any measure of unification of outside bodies of architects with the Institute as a prelude to the production of a measure of Registration, and that feeling was emphatically marked, because the members of the new Council were not as a whole composed of men holding the deserved prominence of their opponents; in other words, the electorate showed a disposition to put personal issues on one side in order to vote against a certain policy. This, in a way, is unfortunate, but the remedy is one we have frequently advocated—the use of a referendum—on all important controversial matters. Had such a system been in existence, the whole electorate might have been asked to vote on the question of unification as a prelude to registration, and had they decided either for or against it this decision would govern the policy of whatever Council was in office. The members of the Institute could then vote for those they considered as the best men, irrespective of controversial issues and time and trouble would be saved. But it is useless, so long as men and measures are coupled together, to condemn the results of an election held on points of policy, because it results in the exclusion of prominent and distinguished men. These occurrences will always be possible under the present *régime*.

Now we must assume that either the electors last May knew what they were voting about or they did not. If they did not, they may next May return a Council who are pledged to a measure of unification as a prelude to registration, and it will then remain to be proved whether the particular measure of unification adopted is one which will be sanctioned by a meeting held for that object.

But if the electorate did know what they were voting for, they will probably act in the same manner in May and return more or less the same Council as that which now represents them. If they do this, progress can be made, for all that remains to be done is to enter into negotiations with the Society of Architects and the Allied Societies, and to obtain their views on any changes or amendments required in the specific proposals outlined in the Registration Bill produced. This can be done in the ensuing year, and the Bill as amended can then be brought forward next year backed by such unanimity as can be obtained. If this be done the present Council and its successor will have completed the work it was definitely elected to perform, and we shall have explored one avenue, and if with no success, can then investigate another and a different one. But it seems to us that unless the electors did not know their minds last May, they will, by electing another Council of different views, be "swapping horses when they are crossing a stream," or perhaps we should say "investigating a possible ford."

It is now complained that the Unification Committee has not been allowed to complete its work, and perhaps there is some reason in the complaint. But if this Council is not allowed to complete its work, which was to prepare and introduce a Registration Bill, will not a similar mistake be made? In referring the Bill back for further consideration, the R.I.B.A. meeting has lengthened the period which must elapse before the Bill can be brought forward. That being so, they should, in our view, give them time to complete that work by returning them at the next May elections. Whether they are right or wrong, they have only done what they were elected to do, and it is only by allowing them to complete their work that we can say whether they and those who support them are right or wrong in their views.

There are three posible positions—that Registration is an impossibility; that Registration is a possibility; or that Registration is possible, but not unless it be preluded by Unification.

Possibly the cart has been put before the horse by the action of the electors last May, but is it not important that the truth or otherwise in this matter should be tested by completing the experiment which has now been commenced?

We have been accused by an irate correspondent of belittling the Allied Societies, by stating that "they, being partly composed of members of the Institute and partly of those who are not, are in favour of Unification, which would carry with it the imposition of lighter tests than those at present in force under the qualifying examinations." We should have thought this was an obvious conclusion, but not one which reflects on the Allied Societies. It is clear to us that these Societies consist of a large proportion of practising architects, and that such men, whether in London or the provinces, are not likely to have time or inclination to sit for examinations, and yet may reasonably wish for inclusion in the R.I.B.A. This does not seem to us to be a reflection on the Allied Societies, nor was it meant to be one; it is simply a recognition that different conditions bring about a difference in views.

We have our own views about the strongly expressed determination shown over and over again by the Associates of the Institute to allow no change which they believe militates against their status, but we feel we must accept this feeling as being one of the determining factors of the situation and shape our course accordingly.

For this reason we belive it to be far better to divorce Registration from Unification, and for this reason we believe that the present Council of the R.I.B.A. is, in spite of its recent defeat, more truly representative of the opinions of its members than the last one was. It may be that the support given to it is accorded by those who have narrow and prejudiced views, but as we live in a world of fact we must recognise the strength of the conditions which will in the end determine what is possible and what is futile. We must always remember, also, that the movements which put men and parties into power begin from that time to ebb; that the opposition is always being reinforced, while supporters fall away, and that concrete proposals of any kind are a joy to those who wish to oppose them.

Our Illustrations.

ROYAL NORTHERN HOSPITAL PROPOSED MEMORIAL TOWER.

Messrs. Percy Adams & Holden, Architects.

DESIGN SUBMITTED IN THE R.I.B.A. COLOUR COMPETITION

Mr. Hugh Macintosh, Architect.

The design was illustrated in two drawings, namely a one-eighth scale elevation with section of front wall, and a half-inch scale detail of the upper portion. The materials suggested were black Belgian marble for the plinth and the remainder of the front in terra cotta of the various colours indicated, eggshell finish, no high gloss. Except for arches to window openings, columns and cornices, the bulk of the work could be merely wall-casing as thin as practicable. The main structure would be ferro-concrete, with the window sashes, frames and panels in metal. It was felt that the use of a material which was obviously a casing only, and the application of colour to this material, rendered the adoption of massive columns, pilasters and cornices inadvisable. Where true effect is obtainable from refinement of detail and perfection of form the addition of colour is often a detriment. An attempt has been made in the design to adapt for modern purposes two styles conspicuous for the use of wall-casing and colour. Both Venetian and Byzantine, the former in its general form, and the latter in its surface ornament, especially in capitals, give, it was felt, a good background for an essay of this description.

SCALA CINEMA THEATRE, SHEFFIELD.

Messrs. Gibbs, Flockton, Teather & Gibbs, Architects.

The Scala Cinema Theatre, being situated near to the University, in the centre of a good-class residential neighbourhood, and on the tram route to the west end of the city, a restrained and comfortable appearance was essential rather than the showy and ostentatious treatment more usually associated with such buildings. With this end in view, the elevations have been designed in a domestic rather than a palatial style. The entrance hall and vestibule have been treated in grey birchwood relieved by pink marble pilasters. The balcony front and walls of the auditorium are panelled in the same wood, and the architects rely for a little colour relief upon the illuminated picture-glass in the ceiling lights when the theatre is lighted up.

The auditorium provides for 600 seats in the saloon and 400 in the balcony. Four staircases are provided on each floor, which permit of the audience rapidly dispersing from the first house without clashing with those waiting for the second one, a most important point in two-show houses. The saloon and balcony are entered from either side of the picture screen. This arrangement saves the balcony audience the trouble of mounting to the top of the balcony to walk down again to the front seats, it also enables them and the attendants to see at a glance where the vacant seats are.

The operators' room is at the saloon level. This arrangement, besides giving a flatter angle of projection, leaves the more valuable space in the balcony available for seatings.

The three large rooms in the front building were intended for crush rooms and tearooms, but there is such a demand for them for dances, whist drives, meetings and other social functions that they have been fitted up for these somewhat unusual purposes.

It was originally intended to erect the building of brick and faience, but "luxury building" restrictions interfered, and a combined system of steel construction and reinforced concrete had to be resorted to.

The cost of the building, exclusive of fittings and furniture, was about £45,000, and the directors are to be congratulated on bringing such a costly project to completion in face of "luxury building" restrictions, strikes and innumerable other difficulties that have had to be surmounted.

Notes and Comments.

The Eighth Volume of the Survey of London.*

The last volume of the Survey jointly undertaken by the London County Council and the Survey Committee and now published, is devoted to the parish of St. Leonard's, Shoreditch, a district of mean streets and uninteresting buildings, but in which careful and laborious research has gathered together records of a number of interesting buildings of the Georgian period, buildings which show us how many treasures are to be found in almost any part of the metropolis. St. Leonard's itself is fully described and illustrated with over 30 plates, this forming the most complete record of George Dance's well-known design, one of the best of the churches of the period, and a well-known landmark in East London. More interesting still are the drawings and photographs showing the Geffrye Almshouses, which form three sides of a quadrangle facing the Kingsland Road and the smaller almshouses erected by the Framework Knitters in the same district. The volume also includes details and views of a number of old Georgian houses still remaining—48 and 126, Hoxton Street, 43 and 44, Hoxton Square, and 12, 16 and 23, Charles Square, as well as Aske's Hospital, now forming the Shoreditch Technical Institute. A historical account of some 90 pages forms the introduction to the volume, the drawings and architectural descriptions of which have been furnished by Mr. G. Topham Forrest, the Council's architect, while the historical introduction and notes have been furnished by Sir James Bird. No trouble has been spared to make this volume, like its predecessors, a complete and careful epitome of the topography and history of a district.

A Panelled Room.

The Victoria and Albert Museum have issued a little monograph on the panelled room of No. 3 Clifford's Inn, the woodwork of which was purchased for the museum in 1903 and re-erected in gallery 56. It is illustrated by some admirable photographic views and a number of measured drawings made by Mr. A. E. Bullock, A.R.I.B.A. The chambers were built in 1686, and two years later Mr. John Penhallow was admitted to the chamber in which the panelling was erected and also a room over it in consideration of the interest he had in the demolished building and also the money he had expended in rebuilding it. The work has the characteristics of the early Wren period and is both rich and refined in its proportions and detail. The Museum authorities have done well in preserving an example of a period which is associated with English architecture and the production of the monograph leaves nothing to be desired.

Unification and Registration.

We have in our two last leading articles dealt with the facts connected with Unification and Registration and the conclusions to be drawn from them. We do not believe that Registration would be of use or benefit to the profession. Further than this, we do not believe any Registration Bill will for at least a generation receive the assent of Parliament. Under these circumstances we may well ask ourselves what it is we are asked to sacrifice for a benefit we are unlikely to obtain. The Associates of the Institute very strongly objected to the creation of the Licentiate class of members but finally assented to the proposals in view of certain considerations. Is it certain that they would take a similar course again? If, as is asserted, all architects

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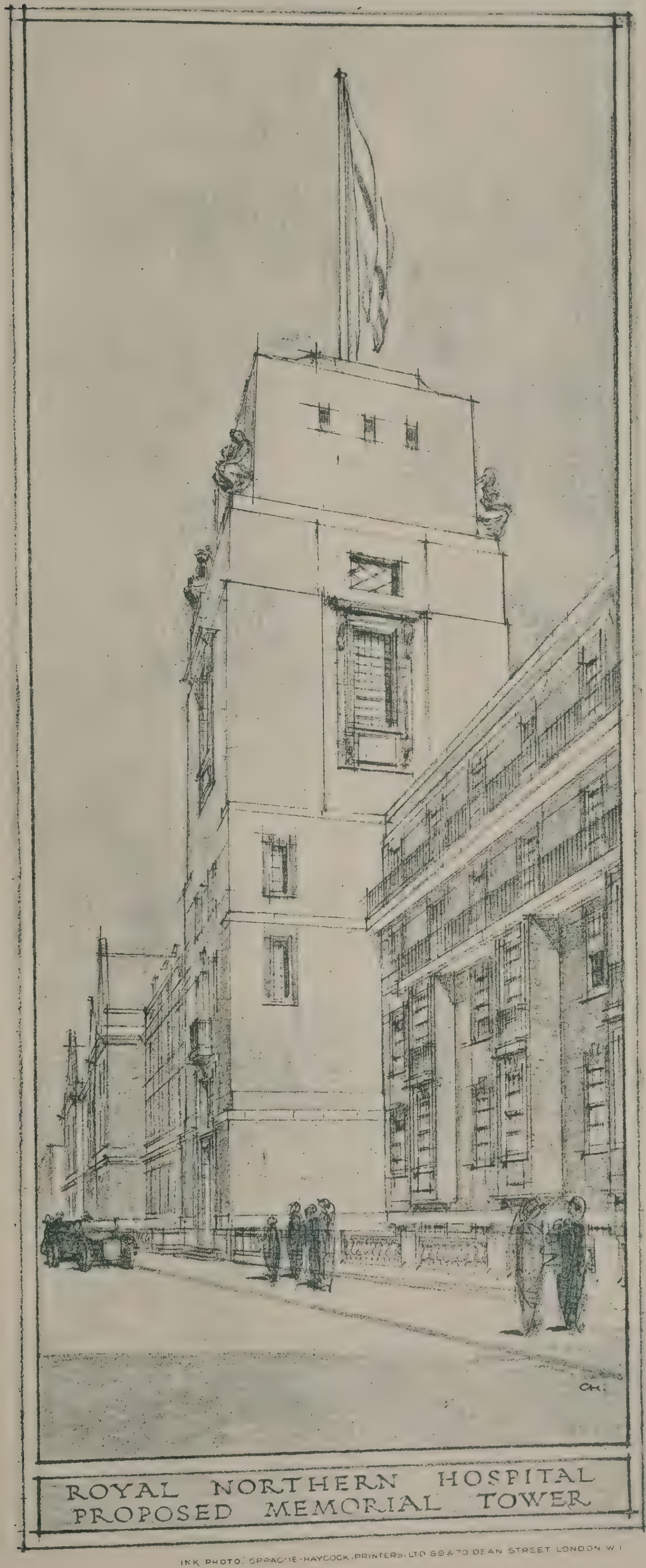
* *The Survey of London.* 8th Vol. The Parish of St. Leonard's, Shoreditch, under the general editorship of Sir James Bird (for the Council) and Philip Norman (for the Survey Committee). B. T. Batsford, Ltd. £2 2s. net.



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ROYAL NORTHERN HOSPITAL PROPOSED MEMORIAL TOWER.

PERCY ADAMS & HOLDEN, Architects.

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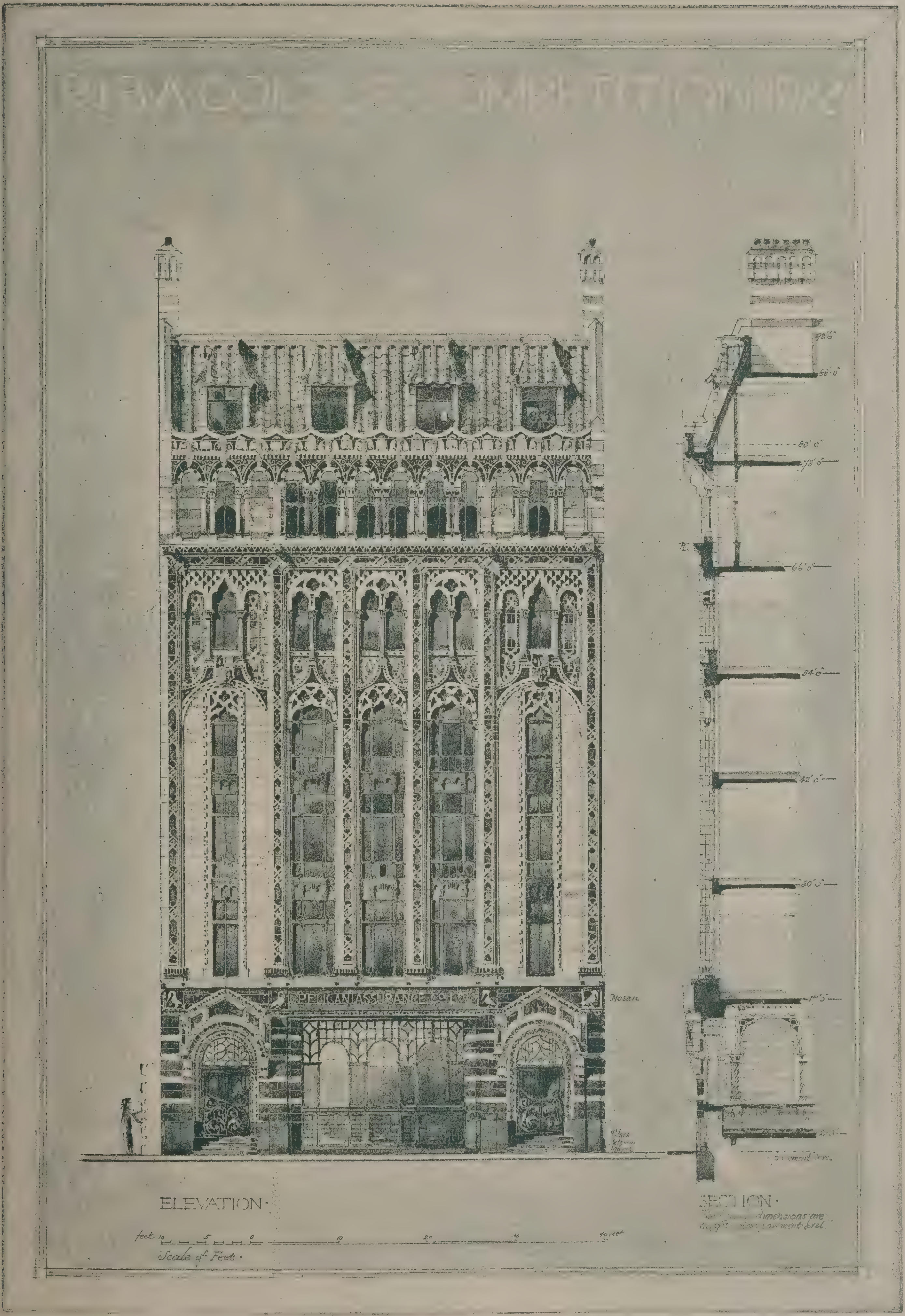

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R.I.B.A. COLOUR COMPETITION, 1922.

HUGH MACINTOSH, ARCHITECT.

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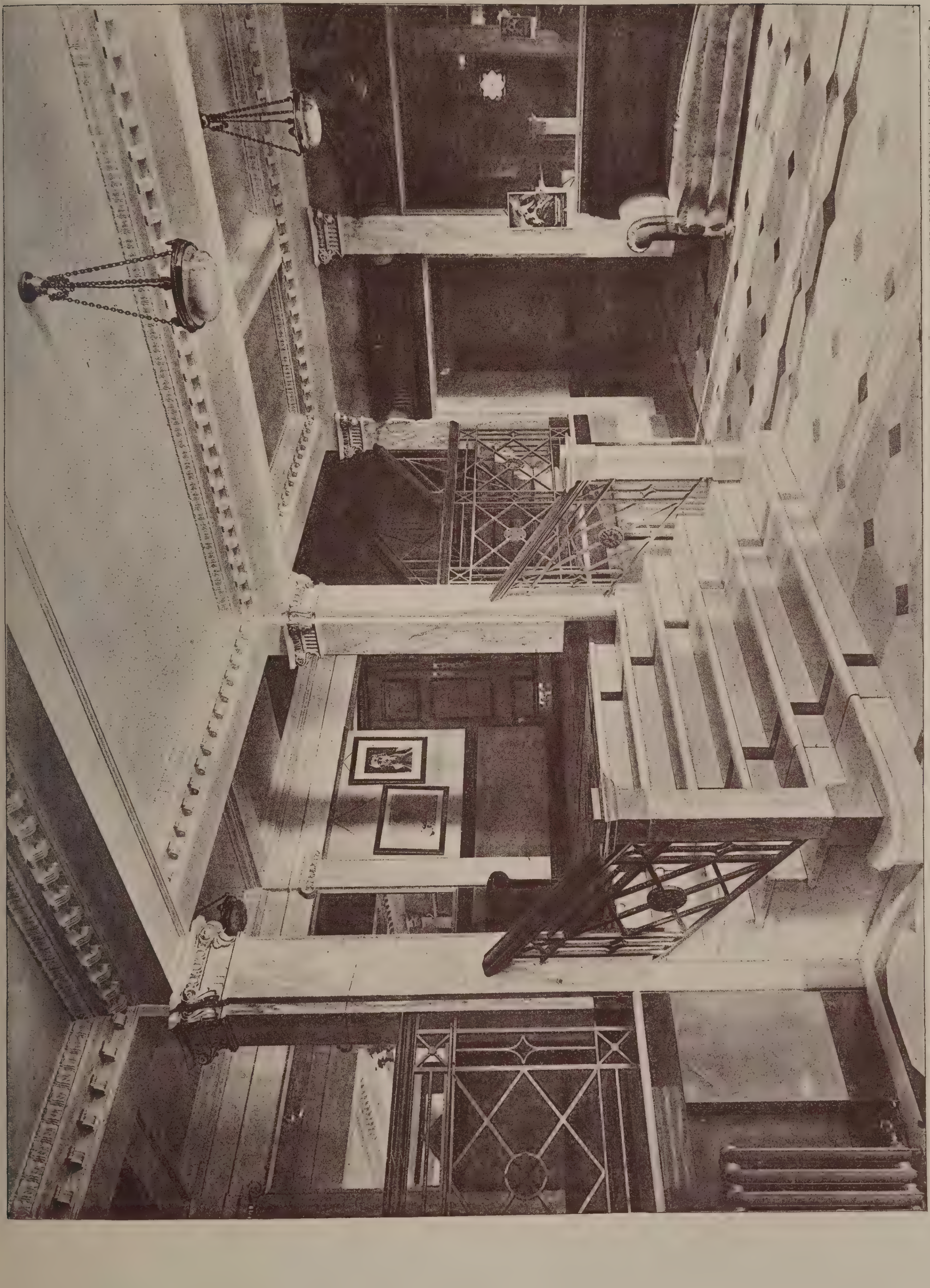

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THE SCALA PICTURE THEATRE, SHEFFIELD: VESTIBULE.

MESSRS. GIBBS, FLOCKTON, TEATHER & GIBBS, ARCHITECTS.

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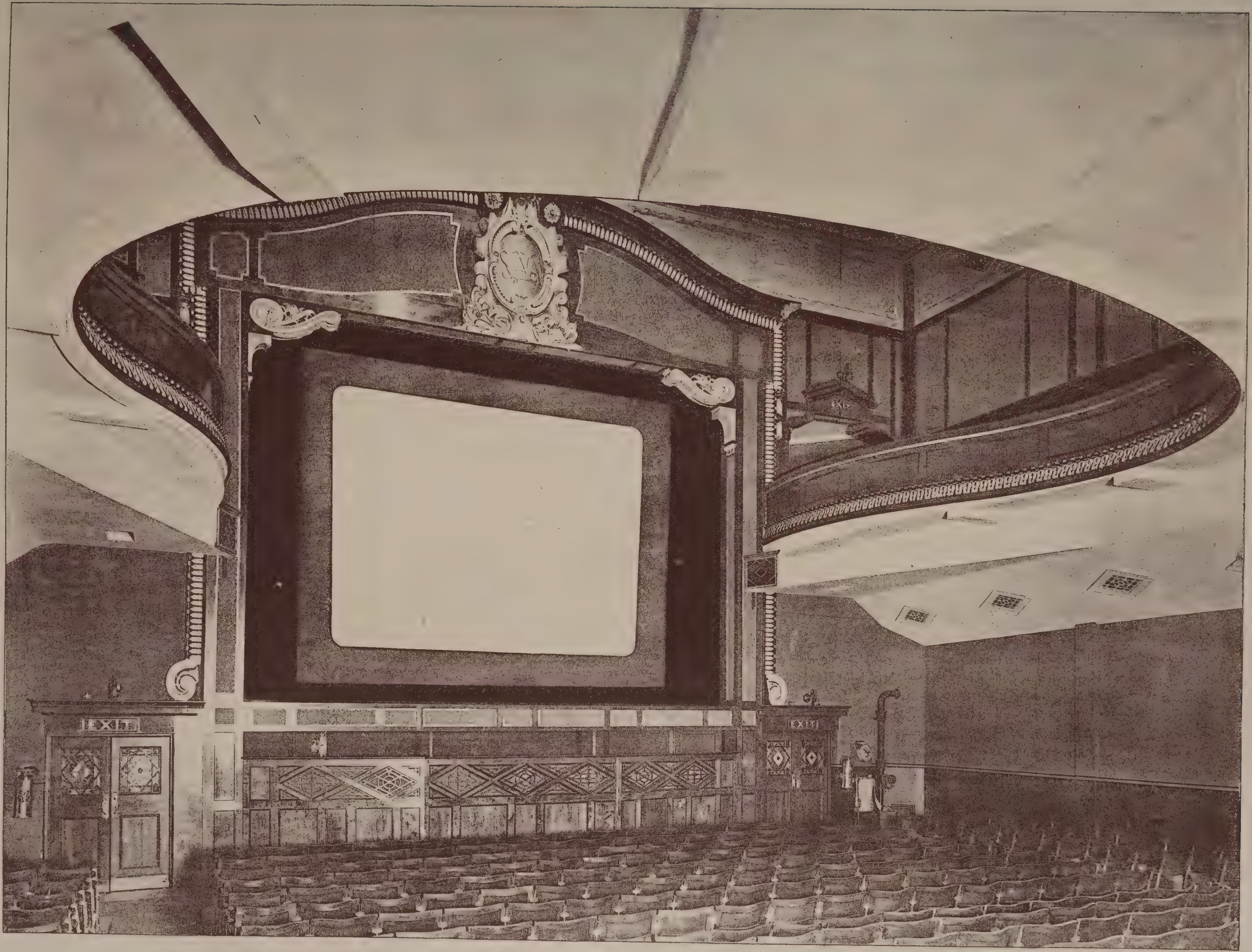

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THE SCALA PICTURE THEATRE, SHEFFIELD: AUDITORIUM.

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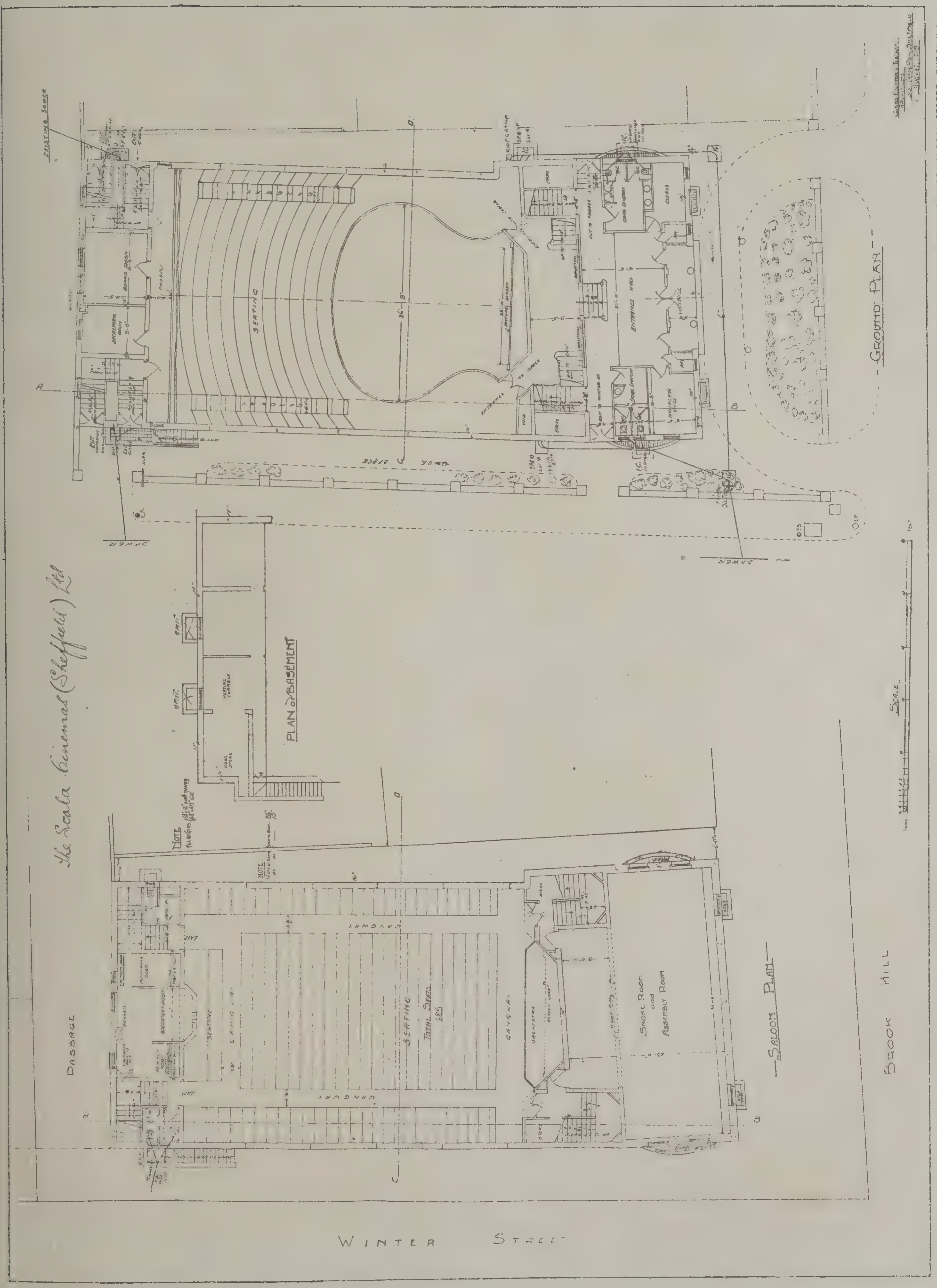

The Scala Cinemas (Sheffield) Ltd

THE SCALA PICTURE THEATRE, SHEFFIELD.

Messrs. Gibbs, Flockton, Teather & Gibbs, Architects.

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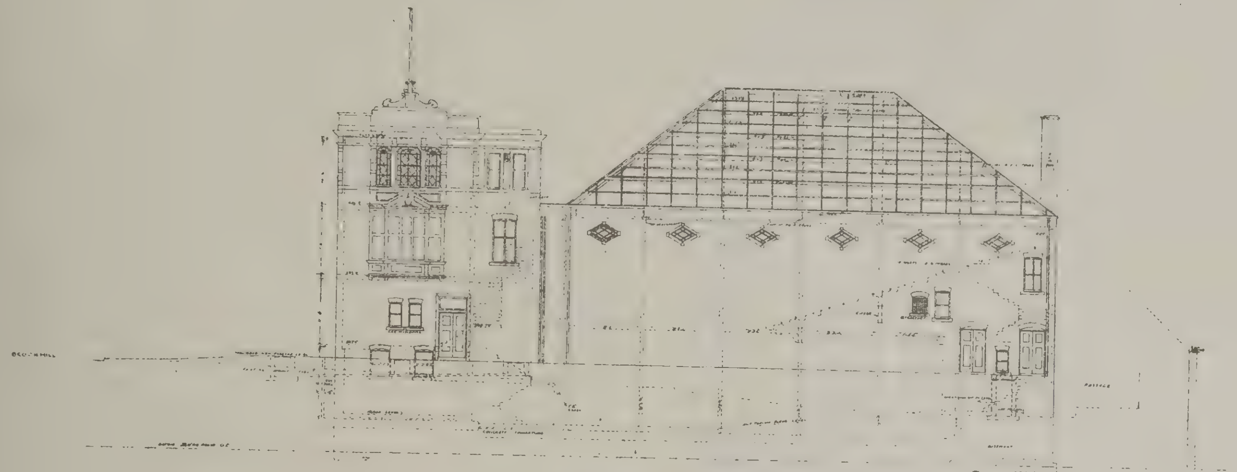
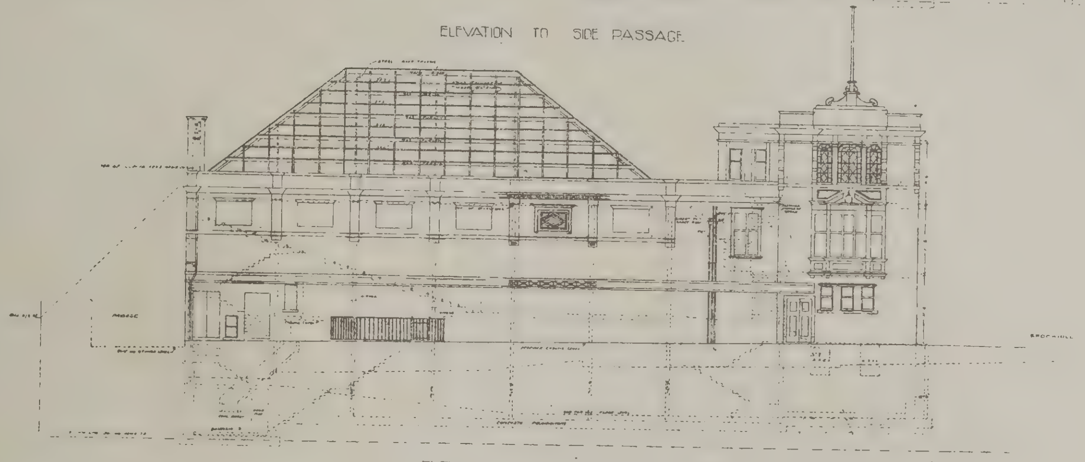


ELEVATION TO SIDE PASSAGE.



ELEVATION TO WINTER STREET

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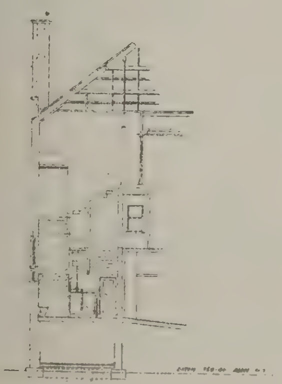

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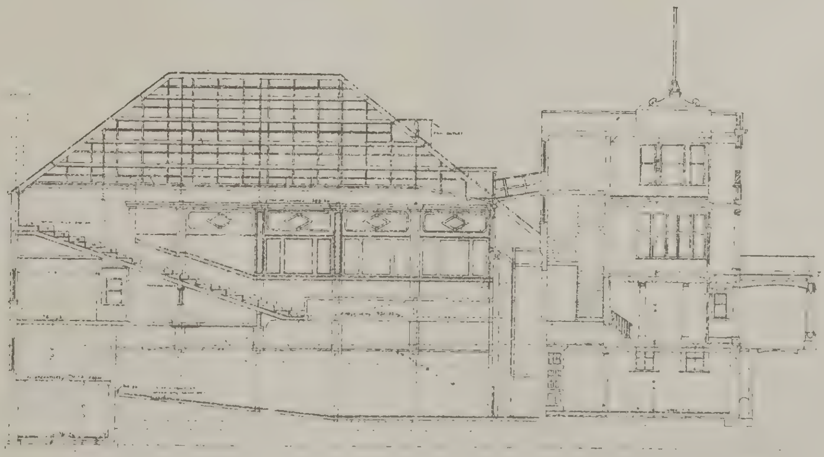

SECTION A B

PHOTO LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

THE SCALA PICTURE THEATRE, SHEFFIELD.

Messrs. GIBBS, FLOCKTON, TEATHER & GIBBS, Architects.

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desire Registration, why should not each section into which they are divided—viz., the R.I.B.A., the Allied Societies, the Society of Architects and the architects outside these bodies—agree among themselves as to a measure which will satisfy all of them and then support that measure in their individual and separate capacities? Such support will be as efficacious as the same support from a body including all of them. If it is impossible to obtain the assent of Parliament to a measure of Registration no one of the sections will have gambled away its separate entity or rights for an uncertain stake. There is, to our mind, no reason why, because the members of the Institute desire Registration, they should alter or lower their status by making unnecessary sacrifices—which is precisely what the advocates of Unification are pressing them to do.

The Question of a Subsidy.

Sir Edwin Airey, the Leeds contractor, speaking at the annual dinner of the Leeds Federation of Building Trades Employers, and referring to the proposed Government subsidy in aid of housing, said that he was afraid the Government were going to do in a small way the same sort of harm that Dr. Addison did on a large scale, and that a subsidy was fundamentally wrong in principle. Here we think he is perfectly right, for we believe that the only admission which will promote a resumption of the building of small houses is that it is useless to wait for the authorities to do anything at all; for then, and then only, will the speculator feel he is protected against unfair competition, and then only will those who want houses know that they must provide an economic rent. The Government should be forewarned, for while the grant of a large subsidy would at any rate please some, the grant of a small one will not even be received with thanks, while it will, at the same time, hinder the cause of progress.

Is Anything Ugly?

Under the above heading the "Manchester Guardian" enters into an amusing discussion of the problem of ugliness. It is true that, while a Northern manufacturing town may be hideous, an artist will frequently find a good subject for a picture or etching in it, and while a face or figure may be ungraceful and rugged an artist may find an aspect which has charm. In the first case the result is produced by framing out what detracts from the emphasis of a picture and in the second by skill in seizing some dominant line or contrast of light and shade. This brings home to us the conviction that what we define as ugliness has an intimate connection with unpleasing monotony rather than with more definite qualities which are actually repellent. The whole subject is a most interesting one and impossible to define, and it is more than possible that neither beauty nor ugliness exists as definite standards but only as conditions which arouse feelings of comfort or discomfort in the mind.

Clients.

Mr. Paul Waterhouse gave, as usual, an admirable and finished address at the R.I.B.A. on Monday, in which he delicately discussed that most interesting subject to all of us. We are in full agreement with the President's remarks about the necessity of studying the mental attitude of every client, which is but a part of the proper study of mankind—man. There are two things which the architect, like everyone else, should know—his work and men, and of the two branches of study we should be inclined to say—so sad are the results of experience—that a knowledge of mankind is the greater asset of the two! Mr. Waterhouse's clients are specially fortunate in that he places each and every one of them in a confidential and watertight compartment, showing in this the extreme and scrupulous fairness for which we all admire him.

Correspondence.

An Essex Water Mill.

To the Editor of THE ARCHITECT.

SIR,—In view of the recent article on Water Mills in THE ARCHITECT, the enclosed photographs may be of interest. The tidal mill at St. Osyth, Essex, is still making flour, and even so recently as the summer of 1922 a new wooden water-wheel was installed there. The interior views of old water-mills elsewhere in the same county, on non-tidal streams, show in one case the survival of wooden gogs, and in the other the wooden framework of an ancient "bolter" used for sifting flour. The latter is the only example I have hitherto seen remaining in position.—Yours, &c., V. M. CHRISTY.

Ingatestone.

Colour in Modern Architecture.

To the Editor of THE ARCHITECT.

SIR,—With reference to the illustration of my design submitted in the recent R.I.B.A. colour competition, and which received Hon. Mention, may I be permitted to draw attention to the apparently chaotic condition of both professional and public opinion on the subject of the application and use of colour in architecture?

As to professional opinion, the awards in the colour competition itself were evidence of the fact that the Assessors, in adjudicating, did not have the advantage of reference to any recognised canons of taste.

In view of the public interest displayed of late in this subject, and the possible attempts which may be made with the laudable object of "brightening" our cities and towns, it is high time that the profession should seriously tackle the problem in order that our last state may not be worse than our first.

Now it is by no means taken for granted that some styles of architecture are pre-eminently suited to display form, and that in these the introduction of colour is not an added interest, but a competing one. The Greeks, for instance, in their use of colour may be held to have perpetuated a custom better suited to the more archaic types of architecture from which their greater styles evolved; nevertheless the whole tendency of their development was towards pure form, undetracted from by anything extraneous. If, therefore, colour be introduced in designs derived from classical types, it should be confined to such parts as are obviously spaces between the dominating lines of the building. Thus columns, caps, entablatures, and the containing masses would, if the foregoing be correct, be left alone to tell their own story. I have before me a reproduced sketch by Mr. Walcot, entitled "A Suggestion for a Coloured Façade for a Town Building," admirably illustrating these principles.

The same may be said of the highest types of Gothic, and, indeed, the principle may be said to have dominated the great master builders. Their stained glass windows, occupying the position of spaces, accentuated the beauty of form in the arches and tracery, and at the same time hold their own intrinsic interest. So we may find traces of colour on the spaces between the groining of stone vaulting, the main members demanding severity, allied with beauty of form, being left plain.

Then, again, are there not certain styles pre-eminently colour styles, partly by association and partly by definite suitability? The Egyptians never appear to have evolved forms so beautiful as to expel their habitual use of colour. The Byzantines fused Greek, Roman, and Saracenic influences, and developed along lines accentuating pattern rather than form, and making the use of colour in wall casings and as backgrounds to interlaced patterns more suitable and legitimate than in their classical prototypes.

Venetia carried on the tradition, and added Gothic influence, and this brings me to suggest that a careful study of the best examples of Venetian Byzantine and an adaptation of this style to modern requirements might carry us along the right lines, and away from the pitfall of superimposing colour on unsuitable types of design, and, above all, deliver us from the madness of covering façades with meaningless patterns, diapers and devices; one building shouting at another, and commercial firms vying with each other in literally and brutally striking the public eye.—I am, Sir, Yours, etc.,

HUGH MACINTOSH.

1 Imperial Buildings, Croydon.

London Art Galleries.

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The Grosvenor Gallery, which opened with the beginning of the present month what may be called its first spring exhibition, is devoting this to the work of four artists—Sir John Lavery, E. Q. Enriques, H. J. Gunn, and William Rothenstein—whose contributions in every case make a very good contrast to each other. The first room, devoted to Sir John Lavery, is a very effective piece of hanging, especially the first two walls. Against a background of faded plum-colour silk these river scenes or sea pieces, such as "The Bridge at Gres," the two studies of "The Turquoise Sea" and the grey tones of "After the Storm, St. Jean de Luz," stand out admirably, two of the cleverest paintings here being the "Wet Day, Tangier" and "Ascot in Rain." In the next room E. Q. Enriques is much more fully represented, with more than fifty studies, but they do not keep to the same level throughout as is reached by her interiors, in which this artist always excels. "Mrs. Mayor's Drawing-room" and "A London Room" are good examples here, and it must be added that some of the still life, such as "The Nautilus Shell" and "The Little Bronze Boy," are sound and careful work. The same cannot be said of all the landscape and flower-pieces, and in fact a smaller and more careful selection might here have been better. One of the most interesting interiors is that of "Kelmscott House," the old house on the riverside at Hammersmith which was for many years the home of William Morris.

The Corner Gallery is given to twenty oil paintings by H. J. Gunn, a young artist whose work shows very great promise. This is especially the case in such studies, kept delightfully cool and fresh in tone, as "Blackfriars Bridge," "Waterloo Bridge" and "July by the Sea." The few portraits shown, some of which ("Lady Walker" and others) seem to suggest the hunting field, are vigorous and effective. The Small Gallery is given up to drawings in sanguine and gouache, by W. Rothenstein, many of them men's portraits—Augustus E. John, A.R.A., The Right Hon. Lord Robert Cecil, M.P., Sir Edwin Lutyens, R.A., and others—which are full of character.

At Walker's Galleries across the road, where the interesting drawings of Egypt by Charles Whimper, R.I., have just been withdrawn, the work of an Australian artist, Miss Cumbrae Stewart, of Melbourne, came on last week. A large number of these studies are figure work, mostly in pastel, and there is no doubt of the fact that the artist has a thorough grasp of this difficult matter of figure drawing. Such studies as "Jeune Femme," as "The Red Scarf" or "En Deshabille" could only be done by one who had a very thorough grounding in work from the living model. What one would like also to have seen would have been some further development of these studies in the direction of compositions, which, as Professor Lanteri once said, should "be the result of your own mental tendencies, of your feelings and emotions about those things which you love best in nature, and which attract you unconsciously." Some of the little landscape studies, such as the "Canal, Warwick Avenue," and subjects in Victoria and Queensland are charming, though on a small scale. Miss Cumbrae Stewart's display here is of greatest value as showing that she could do something even better. It may be interesting to note here that Thomas Rowlandson's drawings, which have so often appeared in the autumn exhibitions at these Galleries, are to be the subject of a special study by A. P. Oppe, which is to be published, with about one hundred illustrations, this spring from the offices of The Studio, Ltd.

In our last number we published two full-page illustrations from the etchings by C. R. W. Nevinson, now on exhibition at the Leicester Galleries. In the present display of some fifty etchings and dry-points by Mr. Nevinson, and of paintings and drawings in the next room by Edmund Blampied, we have two artists who seem to be unexpectedly changing their rôles ; for to me Mr. Nevinson is better known as a painter than etcher, just as Mr. Blampied's etchings have most often come under my notice in these columns. Take, for instance, this latter artist's "Morning Bath," men riding their horses into the surf, which I remember admiring as an etching in the Greatorex Galleries ; and the drawings, such as "The Argument" (in water colour) and "Loading the Cart," have that fine sense of realism in peasant life which is this artist's special quality, though in his oil paintings here he inclines to subordinate detail to atmospheric effect. What one finds, on the other hand, in some of Mr. Nevinson's work here is that it does not bring out the special qualities of the etched line. I do not speak of such subjects as his river or coast scenes, such as "Chelsea Reach," "London Bridges," "Le Pont Neuf," or his admirable "Ebb Tide, Rye," nor even "From Waterloo Bridge," which has all the quality of an aquatint ; but rather of such New York scenes as "The Stock Exchange, New York," and "Broadway, Down Town," where the buildings on either side seem falling inwards. But I have never held back my appreciation of this artist's talent since he came before us in the days of the war, to which the etching here of "That Cursed Wood"—which might be the Forest of Honthulst, near Ypres—with the dead spectral branches of maimed trees below, and the aeroplanes above, like dangerous winged insects, brings back our memories.

The Independent Gallery is now showing an important private collection of the earlier paintings of Augustus John, to which I should like to direct my readers' attention. They are interesting as showing many of the qualities which have since been more fully developed in the work of a young artist who was at that time feeling his way, though there is already vigorous design and a sense of colour in such subjects as the "Girl with Red Kerchief," "Washing Day," "Strange Company" (which seems reminiscent of a famous plate by Goya), and the monochrome of a "Nude." A coming exhibition to be noted is that of the Society of Women Artists, opening at the Royal Institute Galleries on February 8th.

I hear to-day from the National Gallery that the fireproofing of Rooms IX. and X. is now completed, and that these rooms will be open to the public again on Monday, the 5th, so that now the whole of the Galleries will be open to the public for the first time since the war. The rooms just mentioned contain works of the Dutch School, among which Honthorst's impressive "Christ before Pilate," from the Giustiniani and Stafford House collections, is the most notable of the new acquisitions. G. B.

Forthcoming Events.

Friday, February 9.—The London Society. Meeting at 18 John Street, Adelphi, W.C. Paper by Mr. Mervyn Macartney, F.R.I.B.A., entitled "Wren's Work in London." 5 p.m.

Town Planning Institute. Meeting at 92 Victoria Street, Westminster. Paper by Professor F. E. Wynne, M.D., D.P.H., entitled "Relation between Health and Site and Use of Site." 6 p.m.

Saturday, February 10. Architectural Association. Visit to Westminster Hall Roof.

Monday, February 12.—Surveyors' Institution. Meeting at 12 Great George Street, Westminster. Paper by Mr. C. P. Sanger (barrister-at-law), entitled "The Law of Property Act, 1922." 8 p.m.

Wednesday, February 14.—Royal Academy Exhibition of Decorative Art. Lecture by Earl Ferrers, entitled "The Crafts and Life." 3.30 p.m.

Reading Society of Architects. Meeting at University College, Reading. Paper by Mr. Lawrence M. Tye, entitled "Illuminating Engineering in Relation to Architecture." 7.30 p.m.

Thursday, February 15.—Edinburgh Architectural Association Meeting at Royal College of Art, Lauriston Place. Lecture by Mr. John Begg, F.R.I.B.A., entitled "The Architect in India." 7.30 p.m.

Incorporated Institute of British Decorators. Meeting at Rochdale. Paper by Mr. W. H. Cantrill, entitled "A Pilgrimage to the Hill Towns of Umbria." 7.30 p.m.

Cambridge Town Council have decided to apply to the Ministry of Health for sanction to borrow £100,000 to build 239 working-class houses at Chesterton.

Royal Institute of British Architects.

The seventh general meeting of the session was held on Monday last, February 5, at 9 Conduit Street, W., Mr. Paul Waterhouse, M.A., President, in the chair.

Mr. Arthur Keen, the hon. secretary, announced with deep regret the death of Mr. A. T. Walmisley, M.Inst.C.E., elected Hon. Associate 1896, who represented the Institute on the Joint Committee on Reinforced Concrete, and also served on the Science Standing Committee. He also announced the decease of Mr. F. P. Halsall, elected Associate in 1894, and Mr. T. Roderick, elected Licentiate in 1911.

The President announced, amidst prolonged applause, that the Council propose to submit to His Majesty the King the name of Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D., as a fit recipient of the Royal Gold Medal for the current year.

Mr. Paul Waterhouse then delivered the following address to students :—

Clients : An Address to Students.

I have decided after much thought to address you—students of architecture—on the subject of clients.

It is a subject so fraught with delicacy that it is almost ranked among the indelicacies of conversation. I do not remember to have ever heard a responsible architect with clients of his own speak publicly upon the topic. The reason for this lack of utterance may possibly lie in the fear that no man can possibly speak from experience of clients in the past without hopelessly alienating the clients of the future. I have no such fear ; for in the first place the employers of my past energies have seldom or never failed to deserve the kindest things I can say of them, and in the second I do not propose to utter anything to-night on the subject of clients in general that could bring any blush, but that of satisfaction, to their honest cheeks.

Do you all know what a client is ? The word has a strange origin, and has in the course of history, partly, I believe, through the action and attitude of lawyers, turned itself upside down.

A powerful Roman, on whom waited a hungry crowd of dependants, was wont to call himself their patron or *patronus*, and the dependants, who didn't mind what name they took so long as they got his favours, were dubbed clients. Literally, I understand, the word means one who listens eagerly, and, therefore, so long as our employers are waiting like faithful hounds with ears cocked to catch our lightest word we may appropriately call them clients. But in this age of ours the *queue* system for employers of architects is, I believe, confined to one or two rather grave cases, and until it becomes a nuisance of general application I am given to think that the word is, from an antiquarian point of view, rather misapplied. The patron was the legal protector of his clients. Hence came the modern application of the word client to a solicitor's or barrister's employer. The application soothes the lawyers, but I have never heard of a lawyer who went the length of setting himself up as a *patronus*.

Anyhow, there are the clients for you—or there may be—and I mean to talk about them, even if I venture, out of respect for the class, occasionally to call them employers.

A great part of your business, if you are going to swim and not to sink, will consist in the successful treatment of your employers. You will please observe that I have escaped using the word " management."

I escaped it on purpose, because any idea of illicit persuasion, of cajolement or of deceptive encouragement is entirely foreign to what I have to say to-night.

There is one very simple, very obvious, and very rational condition embodied from the very beginning in every transaction between an architect and his employer. It is so radical and integral that it astonishes me to find how frequently it is entirely overlooked by both parties.

The client's outlook on the coming job is hedged in like most fields of logical enterprise by two data, which you may call, if you are in a logical mood, the major and minor premises. But since the word premises is liable to be misunderstood in connection with architecture, and since these two data are of equal cogency, and are not necessarily pulling in the same direction, I prefer to call them the two counterpoises.

One of these, of course, is the house (or other building) that the employer wants and the other is the sum of money he is content to spend. Observe, I do not say the house he first asks for or the sum he first names.

And when I thus differentiate I am not at all implying that he is going to be screwed up to a building more costly than he wants or can afford, but simply that you and he, acting on one another, may modify these conditions at a very early stage in various directions.

Here, then, are these two elements—the price offered and the building wanted. Will they fit one another ? It is a hundred to one that they will not. If they do not, it is well to remember that this misfit is probably nobody's fault.

At this stage it will be your privilege to point out to your employer that something has got to give way. The original idea of the house must be reduced or the sum of money must be increased. If you are both honest and really capable, no embarrassment attends the explanation. But you must be quite sure in your own mind that you are capable of working without extravagance.

The expedient at this stage of deceiving your client or yourself with an approximate estimate based on an unreasonably low factor of price is, of course, unpardonable as well as very impolitic.

You should always make approximate estimates and, I entreat you, always keep them. Start an approximate estimate book as soon as you have a brass plate, check each estimate with the contract figure, check it also with the final account, and keep it till you can hand it over to your office successor.

When you have satisfied your employer about price and he has satisfied himself about size and degree of luxury or simplicity, there remains still, as we all know, the great question of agreement on questions of taste. Here is, or may be, the hardest trial of all. You may, it is true, come to a parting of the ways at which your ways must literally be parted. Your conscience as an artist may compel the severance. But it should not come before you have made sure that it is art, not obstinacy, that is stiffening your backbone, and until you have realised that there is more than one way of doing even a work of art. Certainly you should never do a work of which you are ashamed, but there is a difference between shame and mere disappointment, and you may be able, by substituting simplicity for your own choice in display, to achieve a triumph—not of mediocrity, but modesty. It is in cases where your patron asks for the too much rather than the too little that your profession of faith is most likely to be put to the trial.

Shall we remember here to come back for a moment to the more elementary essence of your craft, that architecture, as I have said elsewhere, is not so much a noun as an adverb. And the adverb is not " how much " but how.

The client pays for his house to be built. The builder builds it. The whole business of " how " it is built is yours.

It is with no disrespect towards clients that I tell you that they are of different kinds. Being human beings, they can hardly fail to differ. And these differences which make them so interesting as employers are partly differences of mentality and partly differences both of taste and of wealth. It is your business to be perfectly respectful students of these differences, not merely in your own interests but in theirs. Remember, it is you who stand, not as antagonists before your employers, but as mediators between them and the fulfilment of their own desires. There are some people who find great difficulty in expressing their needs. To them you will be helpful in guiding that expression. There are some who do not fully know their needs and who look to you for initiation into likely directions. Others there are who require your services chiefly because they rightly look upon an architect as the doorkeeper of building enterprise, just as a solicitor is the doorkeeper of law. It is well at the outset to discover by observation and with tact what is the light in which you are viewed, and if possible to make sure, without any derogation from your office as artists, that you do to the utmost of your ability supply, along with your artistry, that guidance, that prompting, or that specially businesslike alacrity which your employer quite legitimately seeks.

You will find some clients—both individual and bodies corporate—who do not trust you. I do not blame them, for their attitude is caused either by unhappy experience in the past or by incorrect information as to the nature of an architect. It is best in such cases to make sure at an early stage of your own intention to be scrupulously worthy of trust, and, if possible, to convince your client in such a way as to change his mind. I say this not for your sake, nor wholly for his sake, but for the sake of the job.

I once had such a client—he was a corporate one—on a fairly large scale. Banking on the certainty that I should lead that body corporate into an expenditure 20 per cent. in advance of the contract, the said body cut my authorised expenditure down accordingly. I, being honest, robbed the building of certain things which I should have dearly liked to have incorporated in it, and came out of the final accounts triumphant. At least, I thought it was a triumph until I met the committee, when I discovered that my parsimony was a genuine disappointment. Let us gather from this experience, not that we may always exceed our orders, but rather that, if we all unite in keeping up the general reputation for working to a fixed figure, we shall kill that reputation for expansion, the rumour of which had led my friends into a temper of insufficient confidence.

But there are other minds who equally need our respect. There are employers to whom the achievement of a really fine building is of greater importance than the saving of money.

It will happen to you if you become moderately busy men that you will be simultaneously the stewards of the finances of employers, some of whom are at opposite extremes in this respect: and I know nothing more difficult than the exercise of brain demanded by having to turn, perhaps in the very same morning, to the interests of those who demand rigid econcomy, those who look for a perfect building, and those, again, on whose behalf decisions have to be taken on doubts, in which the counterpoise of perfection and cash has to be very evenly weighed.

No large building, however carefully planned and specified, gets through its whole course of creation without any variations. These variations are beset at every turn by the question of cost, and every question of cost has to be judged by one criterion only—that of the inclinations of the client. I say "of his inclinations," which is not the same as saying "his wealth," and by no manner of means the same as your personal wishes.

You will think that I am degrading architecture to the level of rather sordid finance. Let me put the thing in another light. If an employer were to bring you an irregular mass of costly marble, and were to say to you, "It strikes me that this queer-shaped but precious block might be so cut that we could obtain from it material for the jambs and pediment of a doorway. It is unique, no man can obtain more of it; it is so valuable that we must not leave any of it unused."

With what gaiety of heart would you set your ingenuity to work to get some original design achieved which would employ every ounce of that material and call for no more. My young friends, the stipulated price named for his building by a client whose means or legitimate wishes are limited is just such a block of precious metal.

If you HAVE *carte blanche* it is another matter, and if the *carte blanche* relates not to money only but to a free exercise of your own fancy, you are lucky indeed. But, remember, the greater the trust the greater the responsibility; and remember also that the best architecture is wrought as a rule from the conflict with limitations.

Remember, again, that quite apart from the question of future favours there is no friend like an old client. The relationship of architect and employer is one of the most intimate and delightful nature when nothing mars its perfection. The architect is, on the whole, the more likely of the two parties to disturb the smooth surface of that delicate relationship, for he has more opportunities of failure and is more greatly at the mercy of chance. Therefore, be ever on the watch, remembering through all your difficulties the value which your appointment has outside altogether of its pecuniary and professional nature.

To this end be very loyal. You are, if your work is a domestic work, admitted to an interior knowledge of your client's family life, which is very near that of the doctor and very like that of the solicitor.

Never tell stories of one client to another. Consider the financial side of your transaction as a confidential secret and regard as sacred all intimacy to which you are admitted.

If trouble comes between you, search your own mind for the cause of it, remembering that your employer, being a gentleman, may shrink from telling you what is the real cause of the break.

Now let me talk quite boldly about the unspeakable subject of asking for work. You and I know that it "isn't done," but when we have said that we have said what isn't historically true. But between sending a letter of definite appeal direct to the projector of a building and lying low there are a great many fine shades of discreet or indiscreet suggestions, and persons have been known to draw the line for themselves at various points between zero and the boiling point of indecency. I will not tell you where the right line is, except that speaking in terms of the thermometer, I believe it is somewhere between zero and freezing point, and that the further it is below 32° the better. I do not suggest that a man should keep his candle under a bushel, but he should not push it under people's noses.

I have, however, one appeal to make. Every man who does in any degree propose his own employment, except by the legitimate means of competition and the like, not only does injustice to the more modest and loyal practitioners, not only breaks the code of our etiquette, which is, after all, a sportsmanlike agreement with one another, but he paves the way for a possible breakdown of the condition under which we all live and work.

Consider for a moment the strain under which we should all live if the solicitation for work were general, and if we felt it our duty to ourselves, our wives and our families, to be always out on the warpath attacking every opening and besieging every likely promoter of building enterprise.

Gentlemen, if you wish our profession to "live happily ever after" and to be respected by those to whom we owe our opportunities, set your faces against self-recommendation.

The best people don't do it. Be best people.

In conclusion, I hope for you all that you may enjoy from the outset—through all the successes, disappointments and worries of honourable and happy careers, those pleasures and satisfactions which have been my own cherished possessions—the friendship and trust of good clients.

That they are long-suffering, that they often give that friendship where it is little merited, and bestow that trust in a degree which seems scarcely deserved, I for my own part know only too well.

Long live the good clients!

Mr. Henry V. Ashley, F.R.I.B.A., then read a

Review of the Works Submitted for the Prizes and Studentships, 1923.

He said that, considering the work as a whole, he believed it to be better both in quantity and quality than that of last year. That was all to the good; but he felt sure that the competitions were by no means as keenly contested as in pre-war days. The records from 1899 to 1913 showed the average number of competitors for the Pugin to be 10 compared with 2 this year, and for the Tite 18 compared with 9. Such falling off could not by any means be attributed entirely to the war—there were plenty of students and plenty of schools—it was due, in his opinion, in quite a large measure to those very schools and their students working in watertight compartments. They have their own prizes and studentships, and in many cases this intensive training left the students too tired, or with neither time nor inclination for independent study or research. That was a great pity. He sometimes thought that students did not fully realise the opportunities presented to them in the prizes and studentships of the Royal Institute. In the first place, they had the opportunity of paying homage to those architects, now passed away, who, in their time, achieved great things, and who founded those studentships. In the second place, they had the opportunity of carrying on the traditions of those older students, the practising architects of to-day, who have always desired to uphold the dignity and high importance of the Institute. And, lastly, by their own studies and researches they had the opportunity of proving to the world how good a thing it was to advance the profession and practice of architecture.

In general terms the studentships might be taken in two divisions, viz., those involving study of, and research into, existing building work, and those involving the creation of something—or design. In the former were the measured drawings, the Pugin and the Owen Jones; in the latter the Tite, Saxon Snell, and Grissell Prizes, with the Institute Silver Medal for Essays; also, perhaps the Henry Jarvis Studentships. The student by his research learnt how the builders of all ages built: how they laid out, devised, constructed, and embellished their buildings. Only by such means could the student hope to succeed in originating and creating buildings of his own, and the studentships offered him excellent opportunities. There were few obstructive conditions, no difficult clients, and the awards were made by sympathetic juries.

With the verdicts of the juries this year he could honestly say he agreed, although he had arrived at the result somewhat more laboriously than they.

For the Measured Drawings Medal there had been submitted, by Mr. Dougill, perhaps as fine a set of drawings ever sent in, comprising the most complete survey of a group of classic buildings, the Campidoglio at Rome; there was little but praise due for the work exhibited. He commended them as examples of what architectural drawings should be.

It was greatly to be hoped that future years would bring back the old time rivalry for the Pugin Studentship, and reinstate it in its rightful place. The standard the winner, Mr. Thorpe, had reached was a high one, his drawings were excellent and well earned the distinction. Perhaps a few freehand sketches would have been a valuable addition to his exhibit. Mr. Heritage, the only other competitor, was not a serious rival—he seemed to lose interest quickly and to get tired; he should try again and take more trouble, select less ambitious subjects at first, and go steadily through with them to completion.

The Owen Jones Studentship had been awarded to Mr. C. F. Filbey, the only competitor, but he well merited the prize. The chief work exhibited was Indian decoration, and the drawings showed good technic of water colour; it was just a point whether the time spent on so much repetition work was worth while.

Nine designs had been received for the Tite, the subject being an Italian Embassy in a European capital on a site of 150 feet frontage, 450 feet deep, and situated on the side of a hill, sloping at an angle of 15° upwards from a street which was 30 feet wide. Apparently the jury had in mind the Genoese Palace as a basis, but this did not seem to have influenced certain of the competitors. Most difficult problems were involved, and no one had mastered them all—the grand approach and staircase up to the reception suite, the reception suite itself, the management of the entrances at the street level, and the position of the ambassador's quarters were crucial tests in stately planning and composition.

The designs of "Tugga," "Poffergy," and "Tishy" most nearly approached the right solution—the authors, one would think, must have often met and reported progress during the preparation of their drawings, or, possibly, they had studied the same books, since the similarity of plan could not be accidental. Mr. J. C. Shepherd had well earned the prize, his planning generally, and the lay-out of the principal floor, his arrangements of the ambassador's quarters, with its terrace garden, and his treatment of the longitudinal section, all being very ably devised and logically worked out. His elevation, however, was not so successful, and he might have spent more time in perfecting the external treatment of his otherwise brilliant scheme, nor was its colouring very successful. Miss I. M. Chambers entirely merited her Honourable Mention for a fine design excellently drawn. In some points equal to the winner's, the approach and grand staircase were not so good, though her elevation was more effectively treated, being more on traditional and Italian lines and expressing the plan. The well-drawn and beautifully coloured design by "Tishy" was treated very similarly to the other two, and might well have been recommended for an Honourable Mention also.

The subject of the Henry Saxon Snell Prize was a Maternity Home and Infant Welfare Centre in an industrial class district. The site of 200 feet square seemed unduly large, and, as a result, there were somewhat fanciful lay-outs and gardens—even pergolas. Of the eight schemes, that by Mr. Theakston had been, quite properly, placed first; it was very skilfully planned, with due regard to economy, and, if built, a really workable scheme would result. The elevations, too, were quiet and restrained, but a little dull. The defects arose from cutting down the accommodation in some of the working parts; all of them could be easily rectified. The scheme sent in by "Crane" rightly received an Honourable Mention; seemingly the main thing disregarded by Mr. A. J. Brown was economy, the area covered by his building being about double that of the winner's.

There were four entries for the Grissell Prize, the subject for which was a design for a warehouse, with certain requirements. The winning scheme by Mr. P. Morrey was a good example of what a warehouse should be; his steel framework and the details thereof look right, although the beams seem rather closely spaced—his calculations, too, are voluminous. All the four competitors made inadequate sanitary accommodation, such as would not pass any authority.

A study of the schemes submitted for both the Saxon Snell and the Grissell Prizes suggested that future competitors should endeavour to produce from their plans buildings of greater architectural merit. Hospitals or warehouses need not be ugly, they can be expressed in well-balanced and well-proportioned structures in the same way as in other buildings of a different order.

For the Essay Prize Mr. Lionel Budden received the Medal for a thesis entitled "An Introduction to the Theory of Architecture." The jury recommend its publication, and rightly state that they have been impressed both by the deep research and originality shown, and by its cleverness of thought and expression. Generally he took Croce's doctrine and deduced from it a theory of art in general and architecture in particular. Thus, Croce's "Intuition" becomes the architect's conception or idea, and his "Externalisation" becomes the architect's expression, signifying the process of external design. The author does not regard his essay as an elaborated philosophy of architecture, but simply as an introduction. Its aim has been he says, to offer a fresh path of approach to the subject, and to suggest a new treatment of it, and in a very able manner does he succeed in his programme. The whole essay is most revealing, and in every way most readable—it should, without doubt, be the forerunner of a more elaborated philosophy of architecture.

In conclusion, Mr. Ashley gave the following quotation from Mr. Budden:—

"The early training of an architect should involve purely formal studies in grammatical and stylistic composition; he should be drilled in the correct use of technical forms. When he really has something to express he will then, as a result of his practice in abstract composition, be able to state it clearly and with precision. If the architect will sedulously occupy himself in seeing that his work faithfully and fully represents his conception, truth and beauty may safely be left to look after themselves. The purpose of the architect is to make his audience see what he has seen—the vision can only be captured when it is wholly released."

VOTES OF THANKS.

The Rt. Hon. Viscount Leverhulme, in moving a vote of thanks to the President, said he had had some prickings of conscience with regard to many of the remarks made by Mr. Waterhouse. He (the speaker) and his architect had known each other for over 68 years, in fact, ever since they met at a dame school known as "a seminary for young ladies and gentlemen." During all that time they had never had a quarrel, and Mr. Seager Owen had executed many delightful plans for him. Personally, he believed that he himself ought to have been an architect—it was the dream of his youth and the maturer ambition of his later years. He had been connected with building ever since as a boy of nine he made a rabbit hoop all by himself and conceived the idea that if he sowed corn on the roof of a house he would get a rich harvest. What a delightful feeling it must be to be an architect! He felt only one regret arising out of his long association with the profession, and that arose out of the one occasion when he had cut down the architect's estimate for the church at Port Sunlight, which would have cost about double what he felt justified in paying. Yet whenever he entered that church, fine though it is, he could always see the accusing scheme which the late Mr. Owen had originally prepared for it. He had never had any regrets on letting the architect go forward without any cutting down. On one occasion a young, ambitious architect prepared plans for a block of seven houses at Port Sunlight, but the estimates were above the maximum allowed of £300 each; the same thing occurred when estimates were obtained for the simultaneous erection of an additional block of seven; but the price was within that limit for a third block, and the twenty-one houses were erected, and proved a notable feature. It had been estimated that the buildings of ancient Athens must have cost the equivalent of five hundred millions sterling; yet he believed the City Fathers must have had much satisfaction in knowing that they had not cut down the estimates. Those who followed the profession in this country to-day were leaving a mark on civilisation In, every part of the world people were coming for domestic work nearer and nearer to Tudor, the sixteenth century, and our later periods. We may not have produced forty-storey buildings or great classical buildings; we have done better than that in setting the standard for the home.

Mr. W. R. Davies, C.B., of the Board of Education, seconded the vote of thanks, which was put to the meeting by the Hon. Secretary, and carried with acclamation.

Mr. Waterhouse moved a vote of thanks to Mr. Ashley for his remarkably excellent and scholarly review of the work submitted by the students. This was carried with applause.

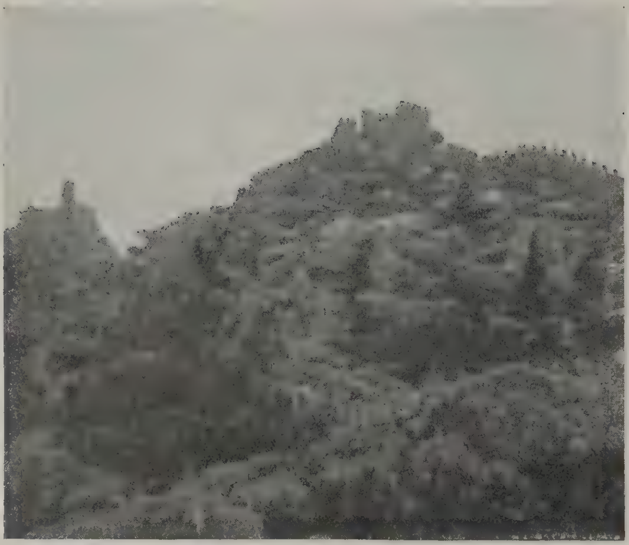
Mr. Waterhouse then distributed the prizes and studentships in accordance with the awards published in our issue of January 26.

Competition News.

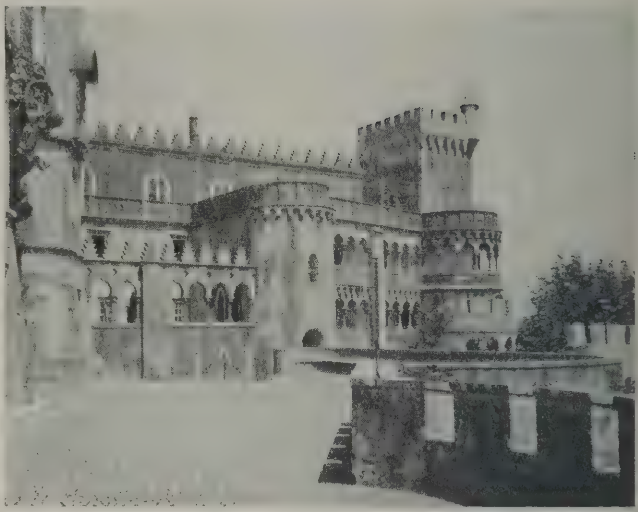
Mr. Charles Swain, architect, Exchange Street, Manchester has been selected as architect for the new homes for the aged poor which the Salford Guardians propose to erect adjoining the union infirmary at Hope in place of the Salford Workhouse. The estimated cost is £48,454. Six local architects sent in plans. The plans provide for six pavilions each containing a ward for 62 people, and six pavilions each with a ward for 201.

The South Wales Institute of Architects' Central (Cardiff) Branch have written to the City Education Committee of Cardiff asking them to consider the advisability of entrusting the work in connection with the contemplated Central (Continuation) Schools at Cardiff to local architects. They explained that these schools are entirely different from the ordinary elementary school, and they were strongly of opinion that the most efficient, up-to-date and economical plans could only be obtained by means of competition.

The Taunton Town Council have formally adopted recommendations respecting the reconstruction of the sewage disposal works and agreeing to carry out the scheme on the lines of the activated sludge system now in operation at Sheffield. This represents a change in the plans originally presented for the extension of the works, and it was resolved to pay Mr. R. H. Bicknell, who had prepared the former scheme, the sum of £600 in full discharge of all claims. The borough surveyor was authorised to prepare and carry out the scheme in conjunction with and under the supervision of Mr. J. Haworth, of Sheffield.



CASTLE OF THE MOORS AND PENA PALACE, CINTRA.



THE TERRACE, PENA PALACE, CINTRA.

Notes from Portugal.

By G. A. T. Middleton.

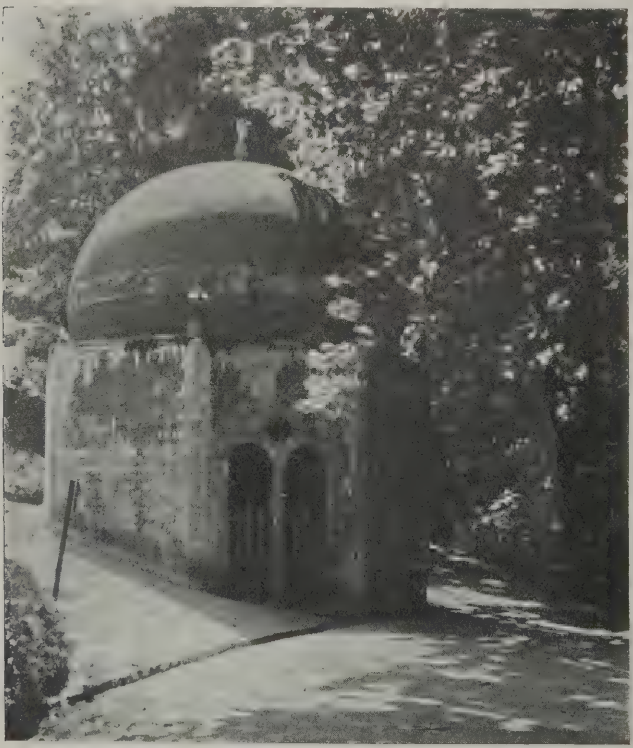
No. XI.—Cintra : The Castles on the Hill.

On each of the two summits of the great granitic hill on which Cintra is situated there is, or has been, a castle. One, little more than the ruined remains of a battlemented wall, is known as the Castle of the Moors; the other now bears the name of the Pena Palace. Their picturesqueness is undeniable, as is also their suggestion of romance. Architecturally they are more curiosities than examples from which inspiration is to be sought.

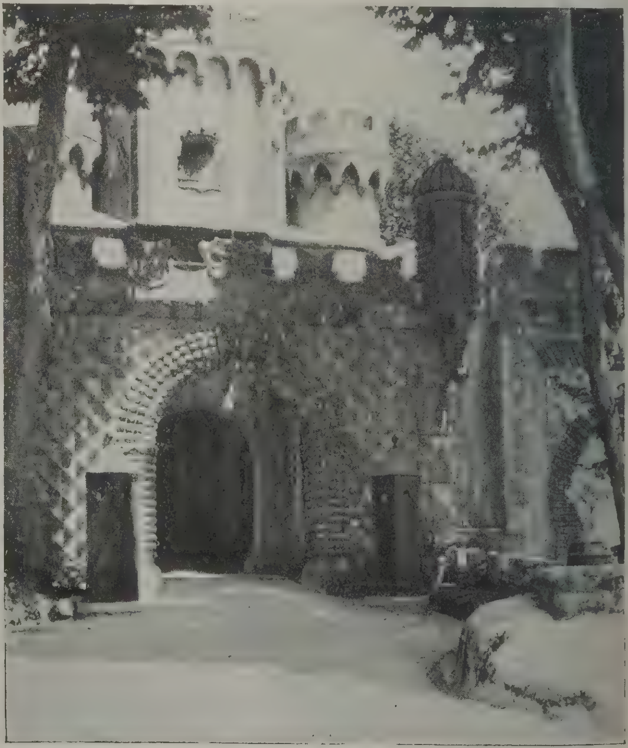
Yet the stone walls of the Moors' castle harmonise well with the rugged hill top, and must have done so even better when it was clear of the trees which now grow amidst the rocks. Inside the battlements there are stairs or narrow platforms, all of stone; and there are rectangular bastions here and there, which at the extreme summit are crowded together so that at a distance there is similitude to a keep. But it is no more than a superficial resemblance. There are no rooms or halls, nor sign of roof, and the only indication of habitation, other than for military purposes, is to be found in a large stone seat hewn out of the base of an overhanging rock which would provide shelter from the sun. Perhaps, too, one should except the guardroom at the outer gate, but that is obviously a late addition, and even contains a little carving of what we should call Norman character.

The Pena Palace is entirely different, and with its gilded domes flashing in the sunlight attracts attention and even admiration, especially when these are seen looking upwards from between the stems of dark pine woods. So far as it can be traced, it seems to have been originally built by King Manoël in the earlier part of the sixteenth century as a monastery; but in place of the usual Manoëlian Gothic of the period, an imitation of Moorish architecture was attempted such as is probably unique.

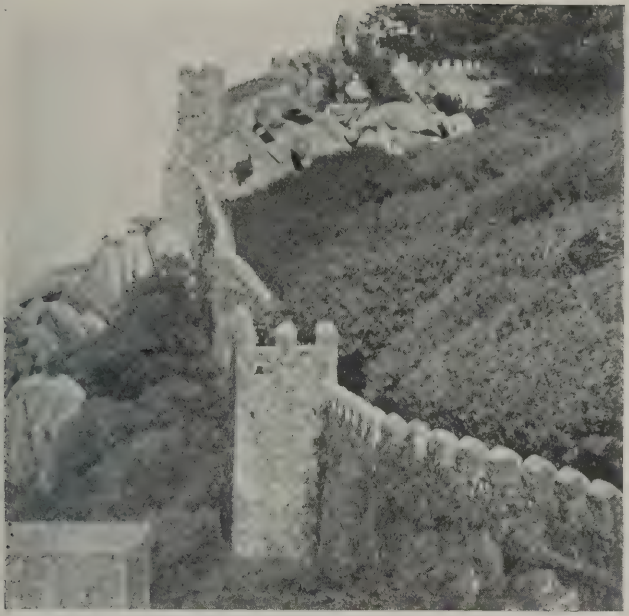
Thus the "Birds' Fountain" in the outer garden is not truly Moorish, in spite of its octagonal plan, its walls covered with (imported) Moorish tiles, and its bulbous dome with



THE BIRDS' FOUNTAIN, PENA PALACE, CINTRA.



OUTER GATE, PENA PALACE, CINTRA.

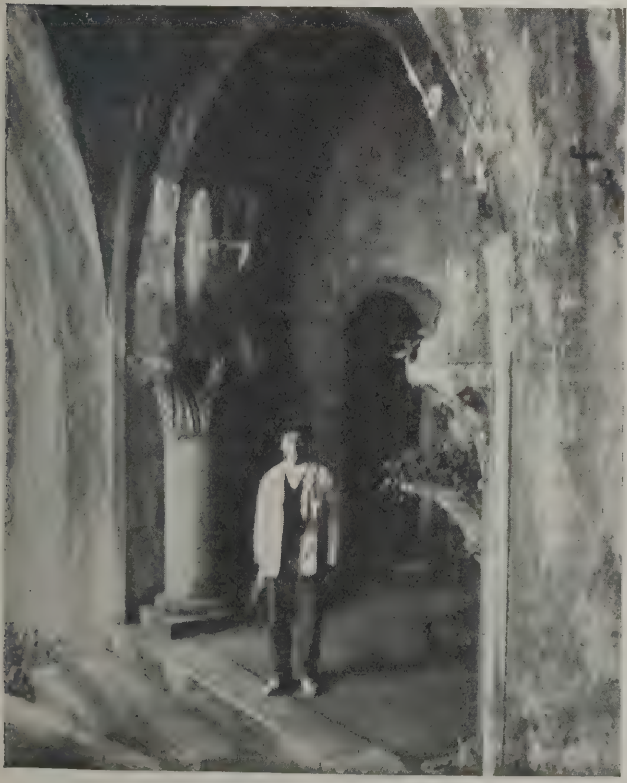


WALLS AND BASTIONS, CASTLE OF THE MOORS, CINTRA.

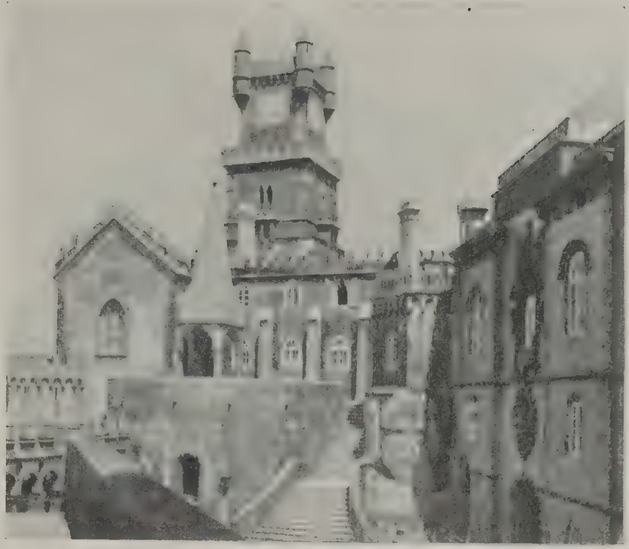
a band of Saracenic writing round its base and its crescent finial. All the same, its charm is irresistible even in its present weather-stained and dilapidated condition.

On nearing the top of the hill and passing through a barbican—it was planned for defence, though originally intended for a monastery—a semicircular-headed gateway is reached, whose ornament consists of several rows of cannon balls carved in stone, set in a wall whose cubical stones have been cut in facets, like those of the well-known Palazzo Diamantini. The cresting of the wall has each embattlement shaped and ornamented as a coat-of-arms, while a helm and mantling enriches the keystone of the arch. The sentry-boxes on the parapet are in keeping with the rest, carried on corbels of twisted cables rising from tigers' heads.

This gateway gives access to a long dark vaulted passage, rising at a steep incline and large enough to admit a carriage, half-way up which there is a recessed guardroom, admittance to which is obtained through a horseshoe arch, carried on stunted attached shafts with strongly carved capitals which are curiosities in their way.



GUARDROOM, PENA PALACE, CINTRA.

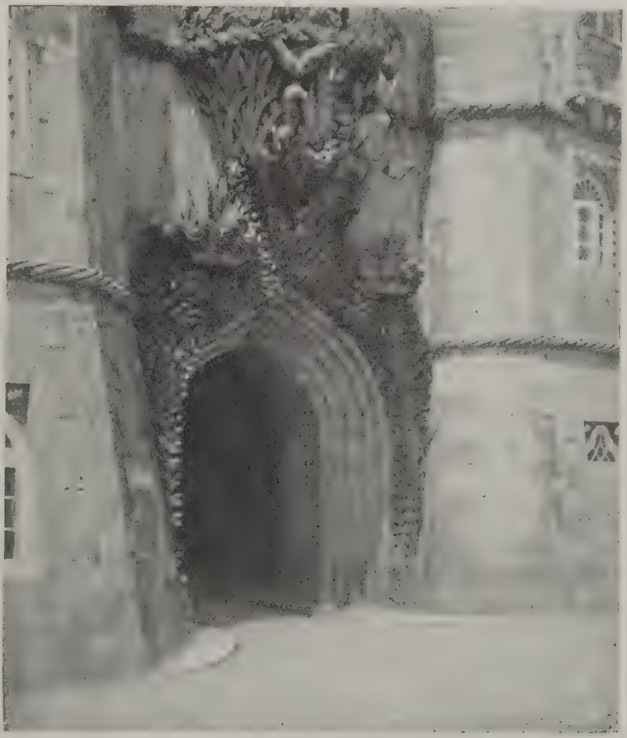


COURTYARD, PENA PALACE, CINTRA.

On emerging from this passage a terrace is reached which faces due south, and has been laid out, both as to itself and the buildings of which it forms the foreground, for the enjoyment of the view of the surrounding country, the building being masked by covered galleries giving shelter from the sun, and the embattled and pierced parapets being obviously mere screens, having no military object.

The main entrance to the Palace from the terrace is made the excuse for as exuberant—and perhaps as bad—a piece of architectural ornament as Europe can show anywhere. To begin with, the arch is surrounded by a mass of seaweed, carrying three large tropical sea shells, in the largest of which Father Neptune is seated, having fish tails for feet—or elongated stockings—and carrying an oriel window on his back. It is supposed to be symbolical of the discovery of Brazil and the foundation of Portuguese dominion in the West Indies.

Within the entrance the courtyard gives an exhibition of ugliness piled upon ugliness in complete unrest. It is an opportunity missed, or worse than missed. In skilled hands what could not have been made of it!



MAIN ENTRANCE, PENA PALACE, CINTRA.

London's Unhealthy Areas

Two lectures under the auspices of the Chadwick Trust are being given in the R.I.B.A. Galleries, Conduit Street, W., by Mr. G. Topham Forrest, F.R.I.B.A., F.R.S.E., F.G.S., architect to the London County Council. The first lecture, delivered on February 1, dealt with "London's Unhealthy Areas."

The question of effectively dealing with London's congested areas was one, he said, which for many years before the war exercised the minds of those interested in housing. Various remedies were suggested, all of them worthy of consideration, since they were the outcome of knowledge and experience. But it need hardly be said that post-war conditions have intensified and complicated the problem—to such a degree, indeed, that the difficulties in the way of reaching a satisfactory solution appear to be almost insurmountable. That, however, would be no excuse for failing to seek one.

But even if a solution of the problem can be discovered, if within a short time we could completely reconstruct these areas, no relief would thereby be afforded to the existing shortage of houses. The question of the elimination of the areas is a special one, quite distinct from the question of the provision of additional houses to meet the general shortage. Moreover, it may be assumed that in all the congested areas there is in the houses themselves—most of them only fit for immediate demolition—a considerable amount of overcrowding. Because of this overcrowding, any reconstruction schemes which are put forward must provide for more rooms than at present exist on the areas.

The lecturer's examination of the subject had been focussed on wiping out the slums and providing the inhabitants with a type of building which shall at once give clean, healthful and pleasant accommodation. To what extent the present financial position will permit of the immediate clearance of the areas was not a subject with which he could deal.

The Housing Act says that when the houses on any area are so bad in themselves and so congested as to be dangerous to the health of the inhabitants or of their neighbours, and that the most satisfactory method of dealing with the evils is by clearance and reconstruction, then such areas are unhealthy within the meaning of the Act.

According to a publication issued by the London County Council, there were in the year 1919 about 1,900 groups of three or more houses which were either insanitary or so congested and badly arranged or badly situated that they required to be dealt with. These comprised over 24,000 houses occupied by more than 180,000 persons.

There is also an enormous amount of overcrowding in London, as was revealed by the last census. Of course it did not follow that all areas in which there is overcrowding are necessarily unhealthy as defined by the Act—that is to say, such as can only be remedied by reconstruction. The census shows that the four and a half million people in London occupy upwards of 4,000,000 rooms. The distribution of population over the County is, however, by no means equal. Taking the County as a whole, the average number of persons to the acre is 60, but in the northern portion of St. George-in-the-East there are nearly 260; in part of Stepney and in Bethnal Green approximately 200. Moreover, as the areas for which these figures are given include all open spaces, the actual density is much higher.

Again, in the County there are just about as many occupied rooms as there are persons; but, according to the census, over half a million people are living more than two to a room, and nearly 130,000 more than three to a room. Or, to take the figures relating to families, nearly 20,000 containing three persons in a family, approximately 7,000 of four persons per family, and over 2,000 of five persons per family are each living in one room. Where these families are in congested areas it follows that they are crowded together in houses which are totally unfit for human occupation.

But the problem is something more than one of magnitude. The moment we begin to examine it closely we discover seemingly endless difficulties in the way of arriving at a satisfactory solution.

A very considerable proportion of the people living in the congested areas are the families of workers who must of necessity live near to where they exercise their calling.

Of course a number of the inhabitants might be housed outside London, but even then the breadwinners would have to travel to their work places, which are probably within reasonable distance of where they now live. We must, therefore, first of all consider whether, in the event of housing accommodation being available for these in the outskirts of the County, they would be able to get reasonably quickly and cheaply to and from their work.

It will be realised that the distances are too great for walking. The distance from the centre of Birmingham to the open country is only 2½ miles, comparatively easy walking distance. In Liverpool the corresponding distance is only about 2 miles, but in London it is from 6 to 7 miles.

To transfer many people to new estates in outside districts would, therefore, involve additions to present railway facilities. Owing to the great value of sites and to other considerations, it is probable that new lines would very largely have to be driven underground. They would be costly to construct, and it is doubtful if for some considerable time they would provide a sufficient return on capital.

Supposing, however, that the necessary railways were actually undertaken, it would be essential that they should be ready as soon as the new houses were completed. But the promotion of the necessary legislation and the construction of the railways would probably occupy a number of years, and this fact forces us to the conclusion that if the people are to be rehoused, it must be on the areas themselves, and not some six or eight miles away.

A further question as regards transferring the people to the outskirts is its effect on London as it already exists. Between the central parts of London and the open country there is a barrier of miles of densely massed houses. This should not be further extended without some break in the continuity. If we are to go on building on the outskirts, then the interposition of a sylvan belt, or of a series of open spaces linked together by broad boulevards, would surely become a necessity; but here again the increased distance of the new houses from the centre would still further accentuate the transport difficulty.

These considerations show that as regards London the idea of any wholesale transference of the present occupants of the central congested areas to the outskirts, as a means whereby the problem of the slums can be solved, is at best but partially practicable.

The problem is also complicated by the fact that it is necessary in nearly every case to deal with each particular area as a separate and distinct unit, as if no other congested area existed. In practice it comes to this: that unless we can find upon the area itself a site or sites upon which an initial block can be built, no beginning can be made with the clearance unless we first obtain a vacant site elsewhere and build upon it accommodation for the people to be displaced from the first section of the area. This explains how it is that only a limited number of areas can at present be dealt with: the difficulty of finding suitable sites for initial blocks is a very real one.

In pre-war days the conditions were different. There were then sufficient unoccupied houses and rooms to enable the Council to transfer the people from a congested area. This permitted the reconstruction to be proceeded with on the broadest lines; the whole of the area could be cleared if desired and the layout designed unhampered by the necessity for a piecemeal clearance as at present.

It will be appreciated, therefore, that the problem is altogether more difficult of solution than in pre-war days.

From an official document, dated December, 1922, we learn that:—

"If the requirements—that is, for additional houses—continue to grow as they have done during recent years, the completion of the houses already sanctioned is not alone likely materially to reduce the present shortage."

The lecturer then exhibited a large number of slides showing areas already being dealt with by the London County Council, and explained the process by which they became congested. Glimpses of the streets and alleys, of the backs of the houses, and of the actual condition of the houses themselves were given; and the conclusion arrived at was that the only hope of remedy is by clearance and reconstruction. By no process of reconditioning could the houses on the areas be rendered fit for human habitation.

With regard to the possibility of eliminating the unhealthy areas, provided sites for initial blocks can be obtained on the areas or elsewhere, the question at once arose as to the best type of building to be employed in the reconstruction. He showed that cottages and three-storey cottage flats were unsuitable. The latter, he recommended, should be built on parts of estates in the inner suburbs.

He was therefore compelled to recommend a type of building of more than three storeys for the areas in question. Here, however, certain important facts regarding the angle of the sun's rays in London had to be borne in mind. By means of diagrams he showed that in winter in Paris buildings (facing south) of at least a storey higher, and in New York at least four storeys higher, could be built without causing any greater obstruction to light than would five-storey buildings in London—that is to say, buildings of nine storeys in New York and of six storeys in Paris would throw shadows no longer than do five-storey buildings in London, so that in London buildings cannot be either so high or so close together as in Paris or New York.

The law in London permits buildings of five storeys to be as near each other as their own height. But this means that the ground-floor rooms can only have direct sunlight for something less than six months out of the twelve, and for the greater part of even that period they will not have more than an hour or so a day.

The lecturer suggested that in London buildings of, say, 45 feet high should not be nearer together than 60 feet, and, if economic considerations permitted, he would prefer that such buildings should be kept away from one another to a distance equal to about twice their height.

The lecturer had a number of very interesting views of high dwellings which have been erected in Paris, and which are placed closer together than would be advisable in London.

As to the type of building, he advocated that where suitable sites can be found dwellings of five storeys should be erected, as, generally speaking, buildings of less than five storeys would not enable an open layout to be designed and at the same time provide for the rehousing of all the inhabitants on a given area.

He hoped that when the housing shortage diminished it would be possible to employ a special four-storey type which he illustrated. This type is rather ingenious, and should prove attractive. In designing it he had in mind the desire of people for cottages. The new type really consists of a cottage above a cottage—that is, the living-rooms and offices are on the ground and second floors, and the bedrooms on the first and top floors. The top floor would be contained within the roof, so that in external appearance the building would be one of three storeys only.

The lecturer pointed out that, although he had carefully avoided all reference to the financial aspect of the problem, as this was not altogether within his province, he had not overlooked the fact that the cost of whatever buildings may be provided must be the lowest possible compatible with the provision of healthy accommodation. It was this fact which led him to visit a number of the capitals of Europe, as well as the principal cities in the United Kingdom, so that he might study the class of buildings erected since the war by other authorities, and he was convinced of the possibility of erecting at a reasonable cost buildings which would give not only ample accommodation for the inhabitants, but be pleasing in general appearance and worthy of the architecture of the Empire's capital.

Royal Institute of British Architects.

The following are notes from the minutes of the Council meeting, held on January 22 :—

Unification and Registration.—The Council received a deputation representing the members of the former Unification and Registration Committee, and consisting of : Mr. H. T. Buckland [*F.*], chairman of the Conference of Presidents of the Allied Societies ; Mr. E. J. Sadgrove [*F.*], former vice-president of the Unification and Registration Committee, and Major H. C. Corlette [*F.*], representative of the architects in Australia on the Committee. The deputation urged the Council to permit the committee to complete its work and present a report. The Council decided not to accede to this request.

British Non-Ferrous Metals Research Association.—The Council made the usual annual grant of £10 in aid of this research.

Tenders Without Quantities.—The Council, on the advice of the Practice Standing Committee, decided to make a protest to the Margate Corporation against its action in inviting tenders for a building costing £20,000 without supplying quantities.

The Rent Restriction Act.—It was decided to make representations to the Rent Restriction Act Committee with regard to the hindrance to large building operations which is caused in some cases by the working of the present Act.

Brechin War Memorial Competition.—Members and Licentiates of the Royal Institute of British Architects must not take part in this competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

R.I.B.A. Prizes and Studentships.—The report of the Board of Architectural Education on the award of the R.I.B.A. prizes and studentships was approved.

Registration Bill.—The Registration Committee submitted a new draft of the Bill embodying amendments suggested by Messrs. Sherwood & Co., and the Secretary was directed to issue the amended draft to members for consideration at the Special general meeting on January 29, in place of the draft already sent out.

The Edinburgh Education Authority are proposing to erect a supplementary school for 700 pupils at Bellevue (Mr. J. A. Carfrae, Lic.R.I.B.A., architect) and a primary school at James Place, Leith Links (Mr. J. M. Johnston, Lic.R.I.B.A., architect), for the same number.

The Story of Clay

Mr. H. J. C. Johnston, General Manager of the Leeds Fire Clay Co., Ltd., and President of the Institute of Clayworkers, lectured at the London Polytechnic, Regent Street, on January 29, before a large audience on "The Story of Clay." The lecture, which was illustrated by cinematograph films, was as follows :—

I am not sure whether the title of this lecture, "The Story of Clay," is quite an appropriate one. I am not going to tell you the history of clay products from the time of the Pharaohs to the present. I am going to say very little about that. But what I want to preach to you to-night is the doctrine of the use of clay products, and although the films which I am going to show to you are those of works of two representative firms, I want you to understand that I am not impressing upon you the merits of the products of those two firms, but I am impressing upon you the general merits and advantages of clay. In other words, I am asking you as young architects and young men coming forward in the building industry to think in clay.

To say one or two words on the history of clay : I may mention that the earliest bricks found in Egypt are stated to be 12,000 years old, and the earliest authentic, or what we might call authentic, reference to products of clay is to be found in the writings of Josephus, the Jewish historian, who said that the children of Seth, who were the grandchildren of Adam, erected two pillars in the land of Siriad, one of stone and one of brick, and inscribed their names upon them. The oldest of the Egyptian pyramids were made of bricks, some of them covered with marble ; the walls of Babylon were built of burnt clay, but rather in the form of terra cotta ashlar than bricks, the blocks being 13 inches square and 3 inches thick. Those walls of Babylon have been pulled down within recent ages and the blocks used for making quite modern houses, although of the Eastern standard. The so-called bricks which we read about in the Bible as having been made by the children of Israel were also in clay. They were not bricks as you and I know bricks, for they were in measurements 18 inches by 6 inches by 6 inches. The earliest example of glazed bricks is said to be the Synod at Ephesus, the domed ceiling of which was constructed in red bricks glazed on their faces with a fine green glaze.

What is made to-day of clay ? You have the ordinary red stock bricks and facing bricks with which you are all familiar. These are made from the common surface clay and shale which is found in many parts of the country. The same material is used for the red terra cotta, for roofing tiles, chimney pots and other things. But the scope for fire clay products is very much wider. The largest use of fire clay is for making fire bricks and blocks, gas retorts and other refractory materials which are very largely used in connection with the iron and steel industry, for glass, gas, and other similar things.

Here, I may mention the very important part which clay played in the winning of the war. You would hardly think that so commonplace a material as clay, so ordinary an industry as clay working, would have anything to do with winning a great war. But at one period of the war, the most critical period, the refractory manufacturers of this country were turning out 50,000 tons of their products, supplying them not only to this country but also to the Allies. It was found that the iron and steel production of several of our Allies was totally inadequate, not for lack of raw materials but refractory materials to line their furnaces. The British manufacturers were called upon for greater effort and they succeeded. It may truly be said that they saved the situation and, indeed, probably shortened the war.

There are glazed bricks and tiles, including the salt glazed bricks so extensively used in the London schools and for other uses before the war. The third in importance is terra cotta glazed and unglazed, and faience. Then we have drain fittings of all kinds, conduits for electrical cables, mangers, cattle troughs, and all kinds of salt glazed ware. All those are glazed by the application of salt placed in the fires at the proper temperature, We have also fire clay, sanitary ware, baths, closets, sinks, lavatories, urinals, swimming baths, and other similar work. The principal uses of glazed bricks are in connection with factories, areas, and wells of offices, blocks in hospitals, schools, swimming baths, railway stations, public lavatories, and work of that kind, and they play an important part in brightening life and aiding sanitation and general welfare. You have no doubt seen glazed bricks, and you have also seen substitutes used. I leave it to you to say which are better. Glazed bricks were first made in this country—and this country was the first to make glazed bricks—150 years ago. We sometimes hear glazed bricks condemned because of the quality of the bricks, which, after all, have been in use fifty or sixty years. The manufacture of glazed bricks has been very greatly improved, and those made to-day are impervious to all atmospheric effects and are generally free from those defects which people sometimes complain about after seeing the old bricks. You have an excellent example very close to this building—the hospital in Langham Place, where glazed were used for the exterior of the building. That, of course, is a very severe test, for those bricks were put up some fifteen or twenty years ago, and you will note that the job looks as well to-day as it looked when erected. There is a very fine block of buildings near the site of the original Old Curiosity Shop in Lincoln's Inn Fields. Again, you have another good example in some houses overlooking St. James's Park, and a very good type in a small house in Great Smith Street.

Terra cotta, used in its constructional sense, is a phrase very often misunderstood. Terra cotta, as it is understood to-day, is in three grades. The first, plain terra cotta, is similar to that used for the Natural History Museum at Kensington, the Prudential in Holborn, and similar buildings in London and many in the provinces. Then there is what is called vitreous terra cotta, plain terra cotta spread over with vitreous glaze, maintaining the colour, and matt glaze terra cotta, which has become extensively known throughout this country and the world and to a very considerable extent in London. I need only point to such buildings as the Savoy Hotel, Lyons Corner House in the Strand, the Regent Palace Hotel, Debenham and Freebody's, and a building now being erected in Coventry Street. Terra cotta affords to architects a guarantee that their carefully designed details shall be retained and distinguished for all time and not be quickly lost in thick coatings of soot and dirt as in the case of stone and other materials. Now, I would like to read to you what a well-known architect wrote some years ago. He said:

> " Year after year the seasons renew themselves and with the seasons the impulses in branch and nestage, but the privation of light caused by our high buildings and narrow streets, the acids and impurities of our atmosphere, cripple and scorch the tender growths and degrade the freshness of their tints till at last a film of grime reduces the green of summer to an inky grey and obscures and sullies the yellow of decay, so that we view the ruin of the foliage as a desirable riddance and are thankful to have the fallen leaves swept up and consumed as promptly as possible. For half the year the city is the colour of a dirty cobweb and the only refreshment the eye gets is in the glimpses of the sky overhead, the shop windows and the hoardings. We want colour in our streets: we have tried for it by using coloured building materials, paint, creepers, and flowers in window-boxes, and we have gone to the cost of all these endeavours not merely to gratify our cravings in the matter but for the pleasure of the passer-by in the street. But these ventures are generally disconnected attempts, and so are on too small a scale to make any distinct effect, and owing to the nature of the materials they soon sink back into the general dinginess of the surroundings. Why not use glazed terra cotta or coloured glazed bricks ? I do not suggest that a man should veneer his vertical section of a street-side that serves him as his house and let his neighbour on either side follow or not his novel start, because colour, to be effective, in such circumstances must be in broad masses. I should like to see whole streets treated in permanent colour—or a public building of such a frontage as should be sufficient to display a large mass of plain wall surface. Why should we fear to cover the streets of London with coloured ware ? Is there anything to lose ? The streets at present are not beautiful nor are they interesting. The modern ones have no single architectonic quality. There is no general principle of design in them, no uniformity. No other surface wears so well. Stone perishes rapidly, brick and terra cotta get incurably befouled. Marble requires repolishing, granite endures, but unless it be polished it also gets very filthy. But a good terra cotta glazed brick or faience should be durable as a plate glass window, unaffected by the wildest acids that infest our atmosphere."

There are strong arguments there for the use of something permanent in colour, and that is what I am claiming for terra cotta. I would ask you to look around the streets of London: look at the somewhat unique jobs—because, although there are a good many of them they are small in percentage—and see the laudable way even those spasmodic efforts put a smile on the face of our London buildings. Ask yourselves whether London would not be improved if such efforts were greatly extended. One of the most remarkable examples of colour and architecture is to be found in a house in Addison Road, the residence of Mr. Debenham, and designed by Mr. Halsey Ricardo. This building is chiefly constructed in glazed terra cotta, of white, pink and cream, with glazed bricks of blue and green and green Spanish tiles to the roof. From that description you might imagine that this would be one of the most bizarre pieces of architecture you could possibly find anywhere, but I would like you to look at it and I am quite sure you would form a contrary opinion. Mr. Halsey Ricardo lectured some time ago before one of the architectural societies after that house had been built, and in the course of an apologia for having used these extremities of colour he said:

> " The fact that glazed bricks and glazed terra cotta are virtually unchangeable—that the years that roll over the building will do almost nothing to blend and soften the sharp edges of the moulded work, to coax and interchange the play of colour from one brick to another—are limitations indeed, and we want some considerable advantage on the other side to think it commensurate. Durability is good; that the building is impervious to wind and rain is a considerable merit; that it is easily and inexpensively cleaned and comes up smiling after a good wash down; and, moreover, since the surface is not absorbent, the cleaning process washes the dirt off and away. But these good hygienic qualities are scarcely forcible enough to overcome one's natural repugnance to the imperturbability of such a material were it not for the charm of the colour that is obtainable. The gamut of colour is the same as in a cathedral window: what you choose to call you can command to come. The almond blossom hue that flushes the sea front of the Doge's Palace at Venice can be fixed there in London: the stained amber and gold of the marble sheeting in St. Mark's can be marched and displayed in Trafalgar Square, not transiently but for always. Nor can it be questioned that colour is desired in our streets. It is pathetic to note the agony of effort that people make to invest their houses with a little colour and so mitigate the drab universality of our city."

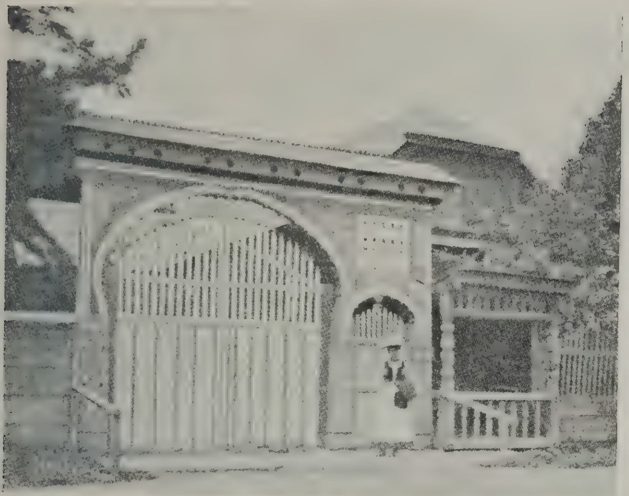
Another example of the artistic use of colour may be seen in the building of the Michelin Tyre Company in the Fulham Road. There is another point which may be mentioned with regard to the introduction of permanent colour, and that is a matter of cost. As a matter of fact the best form of terra cotta is no more expensive than the best form of stone. Colour may take the place of expensive architectural features. Projections and ornamental features are introduced to give contrast of light and shade. What is that but colour ? Corresponding value to these projections can be obtained in ceramic building materials by particular dispositions of colour and tint added to the natural light and shade of the material itself. I have alluded to the fact that this glazed, salt-coloured material is readily cleansed by the action of rain, but where it is desired it shall be kept as clean as on the day when it was erected it is an easy matter. There is no necessity for sand blast and similar materials.

Then we come to durability. Hard burnt terra cotta is much more durable than stone. There is one word I would like to say on the question of fixing terra cotta. There is one very common error in filling terra cottabricks, and hiat is tn using coke breeze. Coke breeze should never be used in filling terra cotta. It expands in the frosty weather.

Clay products throughout the ages have provided memorials of national progress and ideals, and the architectural features of every country and every city pay homage to the creative genius of the worker in clay. I hope that in London and in England generally we are going to see some reflection of that great progress which has been made in the last few years in the manufacture of terra cotta glazed bricks. Clay workers in this country, particularly in the last decade, have by constant experiment and scientific research vastly improved the quality of their terra cotta and their glazed bricks to meet the demands for permanent and artistic colour in building materials and it is to the younger generation of architects that they look for appreciation and reward. It is to those also that every one of us turns who lives in hope of seeing not only a brighter London but a brighter and nobler English race rising from its brighter surroundings. The day of stony disdain, of the " proud scholarship of our streets," is fast going. Those are ideas of age, not of youth. The love of colour and the power to apply it are characteristic of youth—of the youth of nations as well as individuals. Colour is the accompaniment of romance, of poetry, of enthusiasm, of abandon. Before the cold paralysis begotten of experience that we call wisdom colour pales and fades away. In youth a nation has the courage to court failure or, rather, to regard it as a passing circumstance in its attempt to grasp the ideal. John Ruskin's definition of perfection in architecture was: " So to dispose and adorn the edifices raised by man for whatsoever uses that the use of them may contribute to his mental health, power and pleasure."

The submission I am making to you to-night is that that disposition, that adornment, can be made in no other materials so well and so effectively as in clay products, particularly terra cotta and glazed bricks.

The Birmingham Education Committee, who have been investigating the facilities for secondary schools, now recommend immediate provision, comprising the building of a school at Saltley for 400 boys on a site to be acquired; the erection of a school for 400 girls on a site which they already possess in Queensbridge Road, Moseley; and the extension of the King's Norton School to give 100 additional places for boys and 100 for girls. To be provided later they recommend the erection of a school for 400 boys or girls at Yardley, and the adaption of Erdington Technical School to accommodate 400 boys.



The Székely Gateway.

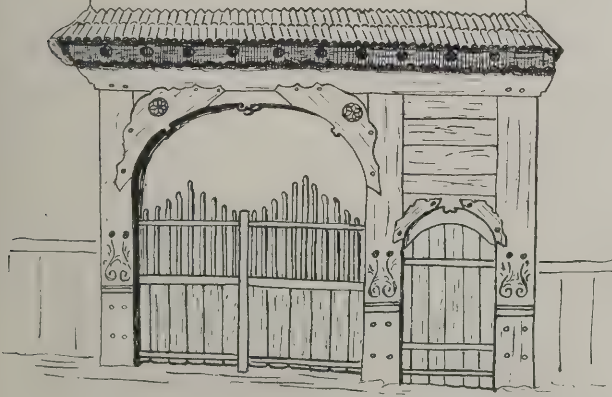
By Cyril G. E. Bunt.

In the heart of Transylvania—the "Pearl of the Hungarian Crown" until the treaty of the Trianon gave it to Roumania—is a beautiful district of mountains and fertile vales watered by the Maros, the Olt and the Küküllös. It is inhabited by people of pure Magyar race—the Székelys—and ethnically must ever be considered as of Hungary rather than Roumania.

The Székelys are usually said to be direct descendants of the Huns of Attila, who, when Csaba led the shattered remnant of the Huns to Greece, stayed behind and settled there. But as a matter of fact they were a people closely related to the Magyars who were settled in Székelyland at the time of the sainted King Ladislaus in the eleventh century. They were a people who enjoyed autonomy and certain ancient privileges in return for frontier military service at their own expense.

Mentally and morally as well as physically they are to this day superior to their neighbours, and in the course of their history they have contributed in no small measure to the cultural development, both artistic and social, of the Magyar nation.

In his present position the Székely is superior to his environment, and a sure index to his mental superiority over his non-Magyar neighbour, the Wallach, is to be found in the appearance of his home. The Székely house is invariably well constructed and of such peculiar distinctiveness that it is considered by native writers to be the purest survival of primitive Hungarian architecture. It is invariably surrounded by a garden with brightly painted fence, the special interest of which centres in the curious gateway which gives entrance to the courtyard. This gateway, the *galambugos kapu*, is the most characteristic and ornamental feature of Székely architecture, much care and talent being expended upon its construction and decoration.



At its rudest it consists of three stout oaken uprights covered by a long, narrow roof of shingles of about eight yards span. Below the eaves the structure invariably takes the form of a shallow loft pierced at intervals and forming a dove-cot. Beneath this the greater part of the width is occupied by a broad gate closing a boldly arched opening of sufficient height to admit the passage of farm wagons piled with the produce of the fields. At one side is a smaller gate for ordinary use, with a proportionately diminished arch.

The sound traditions of timber construction which make the beauty of our own old barns and farmsteads are here exhibited. The main structure is strengthened by tie-beams, which in the more simple examples give organic form to the bend of the arch; and in the more elaborate these beams are still present, though they be overlaid by painted ornament or disguised by the filling in of the corner spaces with fretted designs or carved panels. While the plainest of them is pleasing by reason of its strong solidity of form and design, the majority are *chefs d'œuvre* of Székely peasant artistry.

The actual form varies considerably in matters of detail in different localities, and no two are alike, perhaps the most pleasing being those which show a flattened type of the horseshoe arch, probably derived from Perso-Turkish influences gathered in earlier times. Many an example is literally covered with a profusion of carved conventional designs, in which one may somewhat trace the Asiatic origin of the race. Twining tendrils, conventionalised floral and leaf forms, bunches of grapes, the sun, moon and stars, coats of arms, family crests, and a peculiar, traditional "God's tree" are the chief motives.

But it is not the wealth of carving alone that makes them noticeable. It is the bright, oriental orgy of colouring. Picked out in contrasting red, green and blue, these Székely gateways add greatly to the picturesque beauty of the villages and testify to a sound artistic taste.

On the tie-beams, or above the smaller gate, one generally finds the names of the owner and his wife incised, with the date of construction. And often some characteristic sentence is found, reminding one that these people are a hospitable and God-fearing race. "If thou art pure of heart, step in; if not, the road is wide, pass on," is typical; while another reads "May God hallow your steps as you walk out and lead them that they go not astray." One is reminded of the pious ejaculations found on our lich-gates at home, and, in truth, there is some resemblance in the form of the Székely gateway.

The contract for a "super cinema," seating 1,700 persons, with tea room and dance floor, to be erected at the corner of Haymarket, London, has been given to Messrs. Arthur Vigor, builders, Knightsbridge, London, states the "Industrial Daily News." The contract price is £200,000.

The following statement has been issued by the Builders' Trade Union:—"The statement is being constantly repeated in the Press that rules exist governing the builders' trade forcing 'ca' canny' upon its members. This is entirely untrue. The Amalgamated Union of Building Trade Workers, which is the union concerned in respect of bricklayers, has no rules restricting output, and, on the contrary, desires to uphold the highest possible standard of craftsmanship in the trade."

The Bank of England has deposited the Parliamentary Bill for power to remove to Nunhead Cemetery any human remains that may be found in the course of excavation for the extension of the buildings. Under an Act of Parliament passed in 1781 the building in its present form was erected upon the site of the church of Saint Christopher-le-Stocks and its churchyard. It was provided under the Act that any bodies not removed by relatives or friends from the churchyard should be deposited in "a vault to be made by the Governor and Company of the Bank of England under the northernmost part of the churchyard, and that no building should at any time be erected over the vault." Whether this vault was ever constructed is a matter which, the preamble of the Bill says, "cannot be ascertained," but in the excavations required for the rebuilding of the Bank it is considered likely that human remains will be found, and the Bill now deposited is to empower the authorities to remove any such remains to vaults already purchased in Nunhead Cemetery.

Sheffield Society of Architects.

The annual dinner of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, at the Royal Victoria Hotel, Sheffield, last week, was marked by two features of a unique character. In the first place, Mr. J. R. Wigfull, the president, was handed a gold watch on behalf of the members of the Society as a mark of appreciation of his services as secretary for many years; and, secondly, the Society had the privilege of entertaining as Lord Mayor, one of their own members—Alderman W. C. Fenton.

The presentation to Mr. Wigfull was made by Mr. Paul Waterhouse, the President of the Royal Institute of British Architects; he referred to the necessity for friendship and unity between architects, and mentioned how the Royal Institute in London looked to the provinces for advice and help. He knew how the architects of Sheffield had made personal sacrifices in the cause of promoting architectural education in the city, and architects must see that the river of tradition was progressive. In the course of a few weeks, architects were going to celebrate the memory of Sir Christopher Wren, and he hoped local representatives of the profession would contribute to the Wren Memorial Fund for the restoration of St. Paul's Cathedral. Making the presentation to the president, Mr. Waterhouse said that Mr. Wigfull was the living embodiment of that unity and good fellowship to which he had referred.

Mr. Wigfull expressed his particular appreciation that the gift should be made to him by Mr. Waterhouse. He mentioned that he had been a member of the Institute for more than 30 years.

The Lord Mayor, in proposing the toast of "The Royal Institute," referred to it as one of the most ancient of professional societies. It was formed in 1831, and in 1837 it was granted a Royal Charter. Its powers and privileges had been enlarged and extended by more recent Charters—1887 and 1909—and from the small beginnings of 1831 it had grown to a membership of 4,810. The Royal Institute had done a very great work in the direction of architectural education. Referring to the various committees of the Institute, the Lord Mayor mentioned the great work they had done for the benefit and safety of the health of the public.

Mr. F. E. P. Edwards, the Sheffield City Architect, proposing "The Arts and Crafts of Architecture," said they, as architects, frankly acknowledged the debt they owed to the skilled craftsmen who gave effect and being to the designs which would otherwise remain merely castles in the air. Among the men engaged in the building industries and the ranks of their skilled workmen were many whom they valued as fellow workers in the honest fulfilment of their aims and objects. With the spread of technical education, it was not too much to hope that the era of the artist-craftsman might be revived, and material conditions improved consistent with economic limitations.

Professor Douglas Knoop, Dean of the Faculty of Arts at Sheffield University, and Mr. James Kelly, president of the Sheffield Federation of Master Builders, responded. Mr. Kelly said he took an optimistic view of the present dispute in the building trade.

Town Planning (General Interim Development) Order, 1922

The Minister of Health has issued the following Circular (No. 368) to the Town Clerks or Clerks of Urban or Rural District Councils:—

The Minister thinks it desirable, in view of some cases which have recently come before him, to issue some further guidance to local authorities in connection with the administration of this Order.

If there is not an approved town-planning scheme in force, local authorities have no power to prevent development which complies with the by-laws or other statutory provisions in force; but, if a resolution to prepare a town-planning scheme has been passed, any person who develops without special consent is prejudiced if the particular development should contravene the scheme ultimately approved. By the Interim Development Order, local authorities are enabled to give consent to development in anticipation of a scheme; and a person who has received such consent is placed exactly in the same position, as regards compensation, as if the development had been undertaken before the resolution was passed.

The Minister considers that the presumption should always be in favour of the person who wishes to undertake development.

Town-planning is new, and it would not be right to attempt so close a control at the early stages as may later be warranted. Further, it would not be reasonable to expect as strict authority to be exercised over development before as after a scheme has been approved, when the views of the various interests affected will have been heard and fully considered. It is also particularly desirable that no obstacles should be placed in the way of proposed development unless it is clearly detrimental to important local needs or interests.

The Minister considers, therefore, that consent under the Interim Development Order should be refused only if the development contravenes a definite proposal which the local authority intend to include in their town-planning scheme, and this proposal is clearly of first importance; and he proposes to follow this course in deciding appeals which may be made to him under the Order.

It is highly desirable that cases should be settled locally, and that appeals should be very few indeed; and the Minister is satisfied that, with a reasonable spirit of compromise on the part of the local authorities and of those who wish to develop, there should not be any serious difficulty in achieving this result.

Any agreements between local authorities and developing owners in connection with the Order should always be put into writing.

"The Architect" Fifty Years Ago.

February 8, 1873.

Pettiness of Scale in Modern Works.

By John P. Seddon.

The following extract from a letter from a resident in Leeds is a text upon which a sermon most apposite to the present time might be preached, and it may serve as occasion for a few remarks of a practical character profitable for thought and discussion:—

"Living as I do in Leeds for the purpose of devoting all my time to doing some little in the cause of the working-classes, I feel every day the truth of what Ruskin, Kingsley, and Helps have said about the dirt and ugliness of our large towns. Some few persons are working hard among the ignorant, but want of space in building and recreation ground appears to cramp their efforts. Everything (except trade) seems on so small and niggardly a scale."

Pettiness of scale, in good truth, is the characteristic of the public works of this richest nation in this nineteenth century, which boasts of its progress in science and civilisation. The exceptions other than those which appertain to trade, and which consequently are to be regarded as but speculative advertisements, are so few as to prove the rule. The Thames Embankment is, it is true, an exception of some importance, but even that is grievously spoiled for want of a sufficiently comprehensive, beneficent and artistic feeling on the part of its designers. What mean, narrow alleys are those in which the hideous girders rotate to give an undignified access to the crowds who seek passage by the steamers! What trumpery barges and huts are the provision for landing-places and shelter for the passengers! What parsimony it was that denied to fainting women a single seat from one end to the other, and which can permit a metropolitan member of Parliament now to supply this deficiency, or that which, to save workmanship, put a plain dull parapet that children cannot see through! These are, however, but trifles of detail compared with its severance from the parks, to which it ought to form the climax, the necessary sacrifice to attain which —the removal of but a thin belt of houses in Parliament Street— it seems hopeless to anticipate. If such blemishes are suffered to diminish the lustre of this work, which in many ways approaches the character which should characterise those undertaken in this metropolis, what is to be said of the ordinary routine?

The monster hotels and railway stations now in fashion, though a step in the right direction, can only be classed under the head of establishments for trade, yet everything that is done on a bold scale is of service as tending to raise the general tone of public feeling. It is in the residential portion of our cities and towns that pettiness of scale and comparative squalor is conspicuous. Nor are they confined only to the poorer quarters; meanness, inconsistent with the means of those who inhabit them, is equally characteristic of the general run of the houses of all classes. This, as has been often pointed out, is the consequence of the community having been delivered over to the tender mercies of speculating builders, who construct square miles of human dwellings, made to sell as the primary object, and to live in as a quite secondary one; and comfort and taste are seldom elements of consideration in the transaction. We lament the degradation of the working-classes; but this is mainly due to the miserable manner in which they are lodged, as is their thriftless tendency to spend an undue portion of their wages in drink to their being without shelter after working hours, except in public-houses or their own small and squalid homes, where, at certain times, their room must be preferable to their company.

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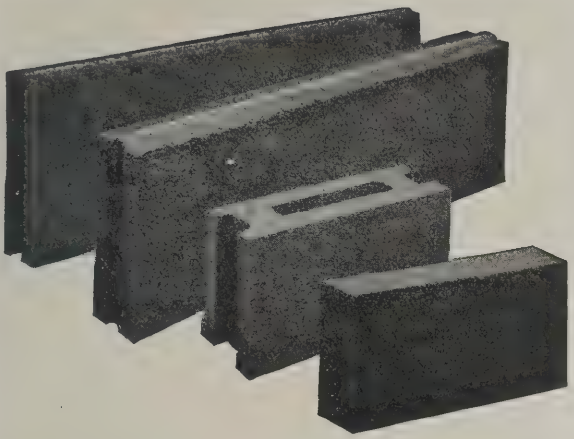

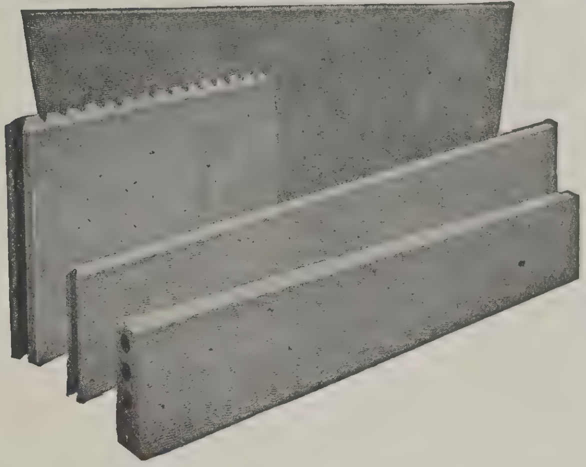

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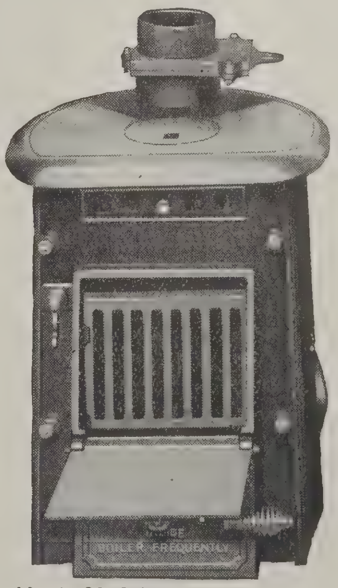

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Registration of Electrical Contractors.

A voluntary scheme of Registration of Electrical Contractors has been approved by a Committee set up by the Institution of Electrical Engineers, and invitations have been issued to the constituent bodies of this Committee, as under, to nominate representatives should they desire to be represented on the Registration Authority:—

The Institution of Electrical Engineers.
The Electrical Contractors' Association (Inc.), including North Ireland.
The E.C.A. of Scotland.
The Electrical Contractors of the Irish Free State.
Royal Institute of British Architects.
Provincial Electric Supply Committee of the United Kingdom.
Incorporated Municipal Electrical Association.
Incorporated Association of Electric Power Companies.
Conference of chief officials of London Electric Supply Companies.
Association of Consulting Engineers.
British Electrical Development Association.
B.E.A.M.A.
Fire Offices' Committee.
Electrical Wholesalers' Federation.

The registered offices of the Electrical Contractors' Association (Incorp.) are at 15 Savoy Street, Strand, W.C.

A New Architectural Enterprise.

Every architect knows how convenient it would be to have a complete supplementary staff upon which to rely in times of congestion of work. An organisation, called "The Architects' Staff," has been established at 16 Featherstone Buildings, High Holborn, W.C., to assist architects upon these occasions.

The office has been opened by one who has had personal experience of these difficulties, having been manager of a well-known firm of London architects for a number of years.

Inquiries into their activities show that they undertake the preparation of sketch plans, working drawings, details, specifications, reports, schedules, surveys, measurement of existing buildings, designs—and, in fact, anything architectural. There is also a branch for typewriting, where all architects' general work can be executed.

The whole project would seem to fit in to the usual architects' office routine and fulfils a long-felt want to many, for in the same way as one would ring for a regular assistant to take instructions so would one telephone Chancery 8461 and obtain the assistance of a temporary staff if the usual assistants were too much engaged.

To have details from this office, for future use, would certainly be an advantage, and we agree with them that the telephone is a simple method of obtaining these particulars of their services and of keeping in touch with regard to any work which may be entrusted to them.

We feel, from the point of view of convenience to our readers, that this enterprise is worthy of our support.

What Causes Paint "Failures"?

Probably nine out of every ten so-called failures of protective coatings are due to improper application, and of these failures a large percentage is due to the fact that many paints are difficult to apply. This difficulty may be that the paint drags under the brush, resulting in great unevenness in the thickness of the coating, or it may be because of the heavy specific gravity of the pigment that sagging occurs. In order to avoid this latter fault the paint is so far brushed out as to make the coat exceedingly thin. Even with expert workmen these defects are frequently a contributing cause of paint failures.

Neither of these objections is present in graphite paints. But a natural flake graphite needs something to give it further endurance, and for that reason the aid of silica is called in. It is claimed that nature's mixture of flake silica-graphite, mined only by the Joseph Dixon Crucible Co., at Ticonderoga, New York, affords a superior paint film as compared with a pigment where silica is mechanically added. For this reason Dixon's silica-graphite paint will be found an ideal protective paint for resisting heat and cold, abrasion, rain and sun, dust, alkalies, brine—practically all agencies which seek to destroy exposed wood or metal constructions. It forms upon application a perfectly inert coating of remarkable durability, elasticity and flexibility.

Samples and illustrated colour-card may be obtained from the manufacturers, Joseph Dixon Crucible Co., 22 Duke Street, Stamford Street, London, S.E.1.

New Books.

"Manufacture of Portland Cement." By Arthur C. Davis. Dublin: John Falconer, 53 Upper Sackville Street. Price 25s. net.

This is the third edition of a very comprehensive treatise on the manufacture of Portland cement, which is one of the most important materials used in modern construction. The historical side of the subject is first dealt with, and the author then gives some general information of an interesting character on the industry in various parts of the world.

The manufacture of the cement is then described in detail from the raw materials to the finished product, with particulars and illustrations of the machinery and appliances required and the efficiency of different types of kilns and mill. The notes on the rotary kiln are particularly useful and interesting, and every aspect has apparently been considered.

Several chapters are devoted to the questions of chemical analysis, setting and testing, the latter covering both laboratory tests made by the works and practical tests made by the consumer. The author is well known as an expert on Portland cement manufacture, testing and uses, and the book can be thoroughly recommended to all those who are connected with or interested in the Portland cement industry, as it is undoubtedly the most complete treatise available. A. L.

"The Topography of Stane Street." A Critical Review of "The Stane Street," by Hilaire Belloc. By Captain W. A. Grant, late 13th Hussars. London: John Long. 5s. net.

It is so long since as 1913 that a book on the Stane Street, the Roman road between London and Chichester, by Mr. Belloc, was published. It was well received, in spite of the offensively antagonising style of writing in which it was conceived and executed; and if we are to credit the statement that it ranks as a standard work and textbook on the subject, it has enjoyed a considerable reputation since then. It is typical of the decline in the authoritative reviewing of books which is a lamentable feature of these times that, although the style of the book was deplored, the conclusions of the author were not challenged, and his pontifical statements and quasi-topographical learning were accepted at his own valuation: a very high one. It has been left to the present time and to the excellently well-equipped author of the present work to reduce Mr. Belloc's pretensions to their true scale; and we are bound to say that Captain Grant, armed at all points with the scientific knowledge of trigonometry which Mr. Belloc clearly does not possess, has produced a work of exact and thorough criticism of the most convincing and destructive character: one to which there can be no effective reply. Rarely, indeed, in the history of literature has there been so damning and merciless an exposé as that we find in this able and patient work, for which serious students should be duly grateful.

Whether the subject of the Stane Street actually is worth all this pother is another matter. But if it were to be written of on the scale of a considerable book, as Mr. Belloc wrote, it should have been treated in a really responsible manner, and not in the empirical way in which the author, as Captain Grant contends, and fully proves, him to have done, relying upon the lack of technical knowledge and the mental flaccidity of the general reader not to expose his pretensions.

The Stane Street is something of an enigma to enquirers, for the reason that it is not mentioned in the famous Antonine Itinerary, which, instead of giving this route, gives the way between London and Chichester as the circuitous journey through Staines, Silchester and Winchester; giving us to believe that it was not actually constructed until after the first quarter of the third century, when that early road-book was compiled. The route of the Stane Street is (taking it from Chichester to London) by Pulborough, Dorking and Epsom; making for London Bridge. In order to negotiate difficult ground, alike of marshes and hills, it is planned not, as customarily by the Romans, in a straight line, but on four alignments. On the way up to London the course of it is a matter of speculation, as from Mickleham; but Captain Grant adduces good reasons for supposing it went through Epsom, Ewell and by Merton Abbey, and along the Kennington Road; a finding we would far rather accept than that of Mr. Belloc, whose technical knowledge he proves, scientifically, to be *nil*: adducing some ninety-seven errors, and stating the sketch-maps drawn by him to have been "fudged." "In fact, the whole seven miles from Merton to London Bridge has been fabricated so as to conform with Mr. Belloc's fictitious alignment. Finally, by an appropriate coincidence, this so-called 'map' is dated April 1st, 1912."

It will be seen that Captain Grant has a pretty wit, in addition to a full technical equipment. He pursues the pretentious author with the view-hallo of a sportsman, and vivisects him in a thoroughly workmanlike manner.

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New Catalogues.

The "Stewart" hollow concrete floor—J. and W. Stewart, 12 Berkeley Street, W.1—is one generally known among the profession. We have received an eight-page leaflet which both describes and illustrates it, as well as gives a table setting forth depths of floors and particulars of various loads and spans with ends freely supported.

George Wright (London), Ltd., 19 Newman Street, Oxford Street, W., who suspended the issue of catalogues during the War, have now resumed their practice with Catalogue "L. 90." It is an excellently illustrated and printed production which gives a very fair idea of the wide activities of this firm, who are ironfounders, as well as heating and warm air ventilating engineers, so that the illustrations begin with Wright's "Everbrite Fire," and conclude with a big fire escape staircase made and erected by them. The prices are not given on each page, but are brought together as an independent list which is placed in a pocket formed at the back of the cover. The catalogue should be of considerable service to the trade.

The well-known complete sectional catalogue of the General Electric Co., Ltd., has for many years been regarded as a standard work of reference in the trade, for it contains very full and clear information concerning the products manufactured within the G.E.C. organisation. But it was a bulky volume. The company realised this, and recently issued a useful price list, entitled "Everything Electrical." This makes no pretence to be a complete catalogue of their products, but simply to give in a useful and convenient form the chief articles and materials of everyday use. The list, which measures 5¾ in. by 8½ in., is a very handy size for keeping in the coat pocket. It is in loose-leaf form and has a thumb-nail index.

The National Radiator Co., Ltd., Hull, have invoked the aid of Miss Gladys Peto to give a "popular" artistic touch to their latest booklet, dealing with "Ideal Classic" radiators and showing them in various settings. Her sketches, in colour, are characteristically dainty, and feature a radiator without any incongruity. The latter achievement, however, is undoubtedly made easier by the fact that the "Ideal" radiators have been designed for æsthetic as well as technical efficiency. The company have also sent us a leaflet giving particulars of the No. 4 Britannia series water boilers, which brings their capacities up to 8,210 square feet of direct radiation. Also a reprint of page 47E of their catalogue, showing the modified and less expensive form of the "Ideal" storage calorifier.

The "Servesi" shop equipment catalogue "F2," sent to us by Samuel Haskins Bros., Ltd., Blackhorse Lane, Walthamstow, E.17, is worthy of a firm which will in a few years be celebrating its one hundred and fiftieth birthday, and which has won so good a name in the trade. There is inevitably a feeling of confidence in goods obtained from a firm which not only can boast such a long standing, but also are so alert to present-day requirements. The art of shop display having developed so enormously within the past twenty years, it would be interesting to know how much of that progress has been inspired by the shop fitters, and how much by the shop owners. We are inclined to suspect that until fairly recently most of the driving power originated with the latter, but that now the positions are reversed and that the owners can scarcely go the pace set by the makers. The "Servesi" catalogue is calculated to make a shop proprietor wonder if he could scrap all his fittings and begin again with this fine equipment which is designed to tempt the customer as much as to help the assistants. The numerous illustrations show that these new fittings are constructed in complete units, being built in sections, and are interchangeable without the use of any tool. They look well designed and well made and worthy of any shop interior. Messrs. Haskins have achieved much fine work in the past; their three-acre factory is equipped to do even better in the future.

According to the "Ministry of Labour Gazette," the number of trade disputes involving stoppages of work reported to the Department as beginning in December was 21, in addition to which 28 disputes which began before December were still in progress. The number of workpeople involved was 7,400. The number of disputes in progress in December and the number of workpeople involved were lower than for any month since the early part of 1917. The estimated aggregate duration of all disputes reported as in progress during 1922 was about 19,900,000 working days. The number of workpeople involved in these disputes was about 550,000. In the previous year approximately 1,829,000 workpeople (including over 1,100,000 involved in a national stoppage in the coal mining industry) were involved in disputes having an aggregate duration of approximately 86,000,000 working days.

General.

The President of the Royal Institute of British Architects has been appointed a member of the Art Council of the British Empire Exhibition (1924).

Major Harry Barnes, F.R.I.B.A., will represent the R.I.B.A. on the General Council of Honour in connection with the International Air Congress, 1923.

Plans have been approved for the proposed secondary school for girls in Ealing to accommodate 350 pupils, with 14 classrooms. The estimated cost is £25,000.

The managers of the Hunslet (Leeds) St. Joseph's Roman Catholic School propose to erect a school which will provide accommodation for 360 boys.

The Newcastle Corporation Housing Committee have received a letter from the Ministry of Health sanctioning the erection of a further 98 houses on the Walker estate.

Messrs. Braithwaite & Co., West Bromwich, have received the contract for reconstructing the pier at Colwyn Bay (which was recently damaged by fire) and the building of a new pavilion. The total cost will be £21,846.

Cardiff Water Works Committee have accepted the tender of Messrs. Piggott, of Birmingham, for half the steel water mains for a second pipe line from Taf Fawr to Cardiff at £118,222. All the steel plates required are to be made at the Cardiff works of Guest, Keen, and Nettlefolds, at a cost of about £50,000.

Sir Ernest George, R.A., architect, of 71 Palace Court, Bayswater, W., left property of the value of £32,019. His bequests included, a paragraph in the will states, £10 to Walter Roope, his "friend and former gardener." The executors may, should they so think fit, select drawings not exceeding thirty and give them to his friends.

Negotiations were recently completed with the Crown for a building lease of Nos. 215, 217, 219 and 221 Regent Street, and 1 Maddox Street, W., occupying an area of about 4,300 feet super. Messrs. Wootton & Son (Lime Street, E.C.) acted for the lessees. It is understood that a large block of buildings will shortly be erected on the site.

The annual country meeting of the Surveyors' Institution will be held in Edinburgh on June 27, 28, 29 and 30. A committee of the Scottish Branch, of which Mr. J. I. Davidson, senior vice-president of the Institution, is chairman, is engaged in drawing up the programme and making the necessary arrangements. Particulars of these will be published later, but meanwhile members are requested to make a note of the dates.

The Pier Committee of the Southend Town Council recently considered the question of constructing a glass colonnade or covered way from the entrance of the Pier to the Pier Pavilion, the principle of which was approved by the Council on September 21, 1921. The Surveyor submitted plans and estimates for the carrying out of the work at an estimated cost of £15,000. The scheme has now been adopted by the Town Council.

The Epsom Urban Council have accepted the following tenders in respect of their new sewage disposal works (Simplex-Aeration Disposal Scheme): Construction of 12-in. diverting sewer, mass concrete tanks, etc., H. C. Pullar & Co., £13,273 12s.; 18-in. pipe-carrier from main outfall to town tanks, Parker & French, £707 9s. 1d.; additions to engine room and new air compressor at sewage pumping station, Henry Taylor & Son, £1,583.

The Upper Ward District Committee of the Lanarkshire County Council recently approved of a scheme, subject to the receiving of a Government grant, for the erection of 100 houses, at a cost of £40,000, in substitution of the 239 houses to be closed. Of these 239 houses to be closed, 84 houses, which practically comprises the whole village of Haywood, are to be included. The new houses are to be erected at Bellfield, Coalburn, Carnwath, Forth, and Carluke.

Skegness Council have received a proposal for the erection of a "Kursaal" in the Fountain Gardens, fronting the main promenade near the pier. The scheme, which has been put forward by a local gentleman, embraces large concert and dance halls, café, shops, wireless lounge, sea-water baths, together with an amphitheatre for open-air concerts. The building fronts the promenade for about 280 feet, and runs back the full width of the gardens. The minimum outlay is placed at £30,000.

The Federal Council of Australian Institutes of Architects offers a bronze medal for competition amongst all students of Architecture of not more than 29 years of age at the date of closing of the competition for the best illustrated thesis on "The Architecture of the Renaissance in Italy during the period 1400–1600 (approximately)." The competition, which closes on March 31, will be assessed by the following three assessors—viz., Walter R. Butler, F.R.I.B.A., of Victoria; G. Sydney Jones, A.R.I.B. A., of New South Wales; Walter H. Bagot, A.R.I.B.A., of South Australia. The decision of the assessors will be final and binding on all competitors.

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Houses and Their Contents.

One marked effect of the housing shortage is that we no longer live where we would, but where we can. In the suburbs our choice may be between the Victorian villa with its wanton basement and the jerrybuilt production of the years before the war. In London and other great towns a basement is almost inevitable, and with the basement go the type of plaster work, of mantelpiece, of grate which is least grateful to the modern eye. Only in the country, where we can build to our own liking or buy an old house of that innate dignity and proportion whose secret seems to have been lost in the seventy years between Papworth and Norman Shaw, have we the power of living as we choose.

But the best house may be spoilt by bad taste, by the too much which is the ruin of the right. Old furniture may be overdone; windows of fair and gracious outline may be ruined by bad curtains; low-ceilinged rooms marred by gilt furniture designed for other settings; panelled parlours and powdering closets desecrated by gilt-framed modern water colours. The power of leavening the whole lump is not confined to the moral world, and lack of courage in discarding unsuitable possessions may wreck at once the possessions and the setting.

Conversely, the worst house may be redeemed by its contents and by a wise treatment of the space available. The high Victorian room may be lowered by a white border above the picture rail, or, with yet greater effect, by white walls surmounted by a frieze of strong clear colours such as many Morris papers will provide. The high and ugly window may be reduced to the eye by curtains stopping well short of the floor; the careful setting of the right furniture in the right place will give the poorest room an atmosphere. One moral is, never despair. You have seen the only house available, and it breaks your heart to look at it. The dining-room is papered with blood-red, as if to tone with underdone beefsteak. The drawing-room has a paper suggesting a chrysanthemum nightmare with a touch of Manchester fog in the corners; the staircase walls are adorned with varnished marble; the kitchen is grim with imitation oak; the doors and wainscots are gay with chipped paint grained and varnished, as if to combine the charms of kitchen and staircase in one pervading whole. Your predecessor's Nottingham curtains, none too clean, are offered as a bargain, and his sideboard—fumed oak with a good deal of plate glass—is suggested as a fixture to go with the place, which you will be lucky to get, as it came from Tottenham Court Road. But do the house up with a view to lightness and cheerfulness, avoiding colours and papers meant not to show the dirt—in these days of Smoke Abatement Societies less moral courage is needed for this than was necessary thirty years back—and you may make the dismal place a home.

Another moral is involved. As you may make a house, so you may mar it, and the marring is at least as easy as the making. A fixed determination to make curtains and carpets "do" is a feminine weakness; a resolute stand against any alteration in the furniture may be expected from the master of the house, assuming, that is, that means are limited and tastes uncertain. It is too much to hope that every owner of a house shall be a judge of beauty, which is fitness; but if men and women could realise that it is in their power to make the worst house tolerable, inside at least, the market for the worst productions of modern commercial domesticity would vanish like a dream.

But, alas, to uglify the beautiful—"and if you don't know what 'to uglify' is you are a simpleton," as Alice's gryphon tersely said—is fatally easy. A saddlebag suite in a Tudor dining-room, an earnest use of photographs in an Adam drawing-room, will do the business, and the cult of the Old Home among the New Rich is only rivalled in its possibilities of disaster by lavish patronage of the local dealer in Genuine Antiques. There is nothing more damning than the Period Style outside the great historic house, nothing which more emphasises the absence of a grandfather on either side. An outcrop of Academy pictures of the seventies and eighties marks a stage of the family history which the grandchildren, when they arrive at years of discretion, may be anxious to suppress; and though old china plates used as a frieze may be family possessions, they are apt to make a wrong impression if unsupported by other evidence of grandparental taste.

It is an old saying that possessions are a test of character, and the wise Old Resident paying a first call will be well advised to look at the bookshelves. If they are few, and the tables littered with Best Sellers, the case is desperate. If they are many, and Mudie's mark is not the only test of books in use, then the acquaintance may be worth pursuing, even though the house may be, externally, of a type in which the man of taste would not wish to be seen dead, much less alive.

Contents, then, are more important than houses, and by contents we mean paint and paper as well as curtains, furniture and pictures. Let the house-hunter take thought, for his environment depends upon himself. It lies with him to make a poor house a pleasant home; it lies with him equally to make of a fine house a dismal failure. It is, of course, just as easy to spoil a bad house as to spoil a good one; but to improve what is now mean is to be on the side of the angels, and it is a task within the reach of all who have the mind to retain and the courage to reject when household gods and goods are bought before the Great Assize of the dreaded move which must decide their fate and the setting of their owner's future life.

Our Illustrations.

FALAISE. FROM A PENCIL DRAWING. By Sir Reginald Blomfield, R.A.
L.C.C. POST-WAR HOUSING. G. Topham Forrest, F.R.I.B.A., F.G.S., Architect to the Council.
A COMMERCIAL HOUSE. Leslie Mansfield, Architect.
WAR MEMORIAL GATEWAY, CLIFTON COLLEGE. Percy Adams and Holden, Architects.

Notes and Comments.

Salaried Architects.

We give in another column a letter from the Chairman of the Architects' and Surveyors' Assistants' Professional Union on the subject of Registration. We quite admit that it may, in many cases, be a considerable burden to men in receipt of salaries if they had to pay an annual fee for registration in addition to their subscriptions to an architectural society. They might, it seems to us, fairly ask that these fees should only become payable when they undertake independent practice, and that it is desirable that the term "practising" should be clearly defined. Alternately, the difficulty is met if all architects having a right by reason of their position in a society to registration need only become registered when they engage in independent practice. Either of these two alternatives would, it seems to us, satisfactorily solve the point at issue.

A Wren Society.

Mr. Mervyn Macartney suggests in a letter to the "Times" that a Wren Society should be formed, and it is quite possible that his suggestion will bear fruit. He also comments on Mr. Law's suggestion that a "Book of Homage" containing reproductions of Wren's more important drawings should be brought out, and this, Mr. Macartney thinks, might be one of the purposes of the society's efforts. We hope if this is done that the book will be produced as inexpensively as possible. Editions de luxe are admirable in their way, but do not conduce towards the spread of knowledge. In addition there is no reason why the drawings of the seventeenth century should not be reproduced inexpensively. They are not—like many modern drawings—*tours de force* in the way of draughtsmanship and execution, but more or less incomplete indications of the buildings they were meant to illustrate. The money spent in the production of many sumptuous volumes would have been better expended in bringing out two works instead of one.

The Unification Lion.

The Unification Lion is now showing great signs of his activity, and there is little chance of our being able to enjoy the tranquillity of sleep. He roars at provincial meetings, while he converts what are sometimes uneventful meetings at the Institute into the semblance of a battle-field. Like other noble beasts of his kind, the programme he advocates is thoroughgoing. The little Associate sheep, who are proud of the care which has been taken to preserve the strain of their unblemished ancestry, are threatened with exclusion from the tempting pastures of Registration unless they go there inside the Unification Lion. "Why," says the noble beast, "should we trouble to keep many stomachs in order when mine will answer all purposes? I can digest for you and I can also digest you. You talk of the purity of your strain, but if you allow me to swallow you, see what a fine position you will have in a hundred years time." The little Associate sheep are puzzled because the Unification Lion looks so big and imposing to them that they can hardly imagine anyone daring to withstand him. At the same time some of them look at the Registration pasture and wonder whether they could not get there alone. The Lion says no, but is he necessarily right?

Great Western Railway Development.

The Great Western Railway is about to carry out several great works of reconstruction and expansion. Newport High Street Station and Temple Meads Station, Bristol, are to be entirely reconstructed, at a cost of about half a million pounds in each case. Fresh accommodation for dealing with livestock and passenger traffic is to be carried out at Fishguard, and a new station is to be built at Heathfield in West Pembrokeshire. In North Wales the line from Bala to Dolgelly is to be doubled, and a new locomotive depot is to be built at Stourbridge. We should be glad to learn if Paddington is to remain in its present position that something is to be done for bringing it up to date, as at present it is both dismal and inconvenient. More important still is it that some rearrangement should be made in the surrounding streets, as the junction of streets near the main entrance approach makes this corner an exceedingly awkward and dangerous one.

"Architecture."

The Bicentenary number of "Architecture" is certainly very attractive, its illustrations containing a reproduction of a fine etching of Brangwyn's of The Monument, some good wash drawings by Keith Murray of several of the Wren churches, and an article with many illustrations on Wren's portraits by Sir Lawrence Weaver. Perhaps the best article is that contributed by Professor Reilly on Wren as a Baroque architect. We are in agreement with Professor Reilly's argument, as we think his contention is a perfectly sound one that Wren, in so far as the limitations of English feeling and instinct permitted, manifested his sympathy with what in other countries showed itself in the Baroque movement. We shall probably never know the inner history of the executed design, but in its frank disregard of direct structural expression St. Paul's is typically a Baroque building. The means by which the end was achieved are those which would have commended themselves to the great architects of the Baroque.

Architecture and the Public.

Mr. Goodhart-Rendel gave an admirable address to the Birmingham Civic Society entitled "What Architecture can give to the Layman," in the course of which he said :—

> It could give pleasure, he thought. It could not give heightened purpose or any of those disagreeable model extensions which people persisted in expecting from the fine arts. The pleasure of which he was speaking was not necessarily that which they always derived more or less from the contemplation of august and ancient buildings. It was something more particular than that. It was the pleasure given by the art of architecture manifested not only in those buildings, but in many which were neither august nor ancient. Some people thought they enjoyed architecture when they were merely enjoying the contemplation of the vestiges of the past. They ought to be archæologists. Other people mistook for the love of architecture their satisfaction in recognising periods and attributing dates. They ought, he thought, to be stamp collectors. Other people, again, greatly esteemed architecture because the buildings they admired looked more expensive than mere buildings. Architecture and music were twins. The æsthetics of the one needed little translation to serve as the æsthetics of the other. Forms of architecture could put images and associations in our minds, and thereby awake emotions. Architectural forms and musical sounds pierced far deeper into our consciousness than outlines, masses, words, or gestures. They aroused a thousand primitive associations of which we were unaware. The appreciation of architecture was said to be much more general now than in the past. If they did not put too exigent a meaning into the word "appreciation," he thought that was true. What the world needed now was a larger number of people who understood what architecture was. The general impression was that it was something to take the plainness off mere buildings. Hence they saw on the one hand flourishing purveyors of historic styles, cut into thin veneers, and on the other indignant æsthetists who would dispense with architecture altogether and give its name to a sort of highly rationalised building. In search of the knowledge of what architecture was, a good many corner stones of attractive theories had to be kicked out of the path. The enjoyment came more easily directly they put all thoughts of newness or oldness out of their heads. Pay as little attention as possible to distinctions of style. They had merely to answer the simple question—"Does it please?"

All of this is very pertinent and apposite to the point and has seldom been put more concisely or convincingly. The alternate test must be the pleasure derived by the average man from building; and unless he does derive pleasure, there can be no possibility of securing living architecture.

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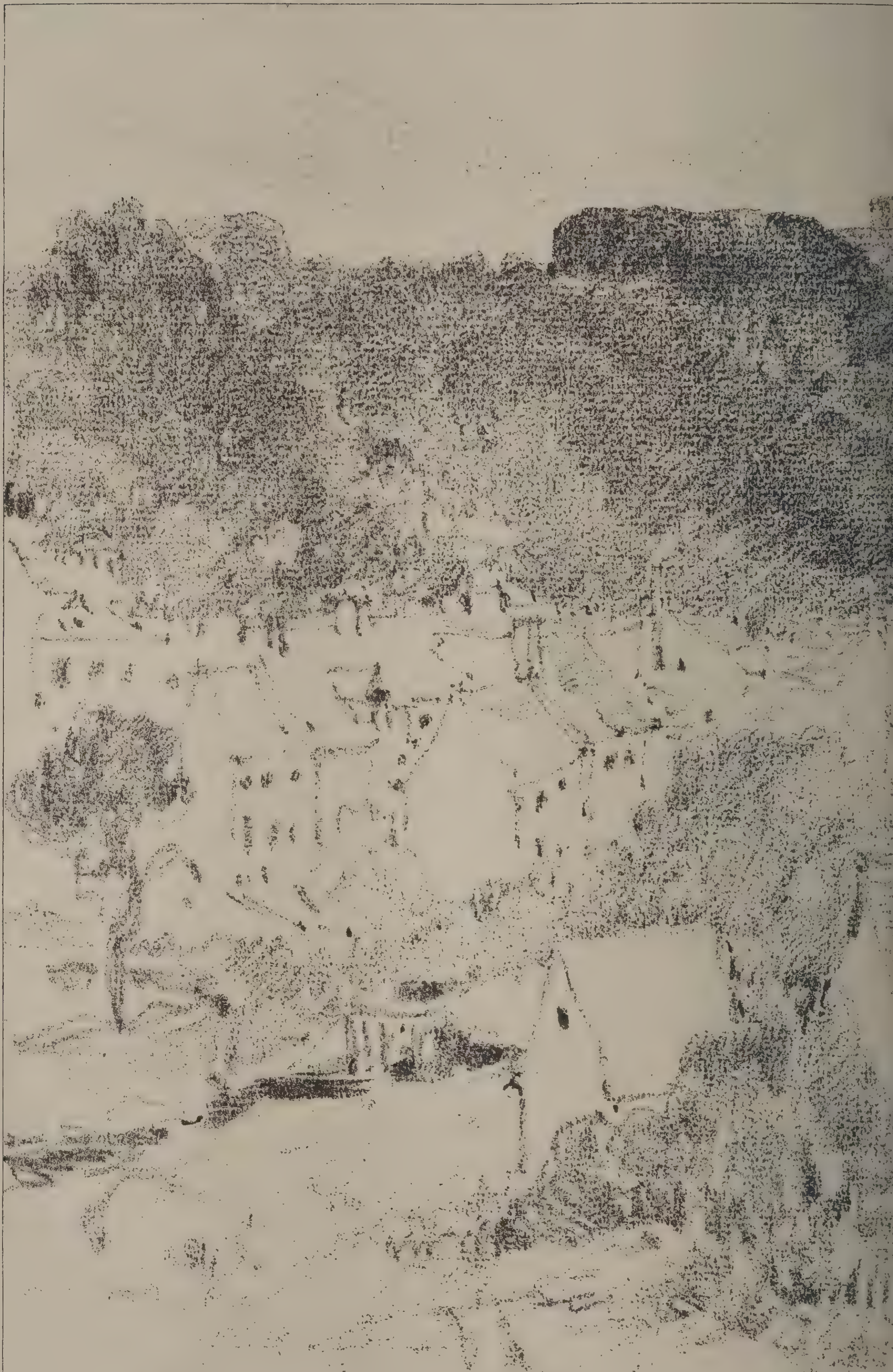

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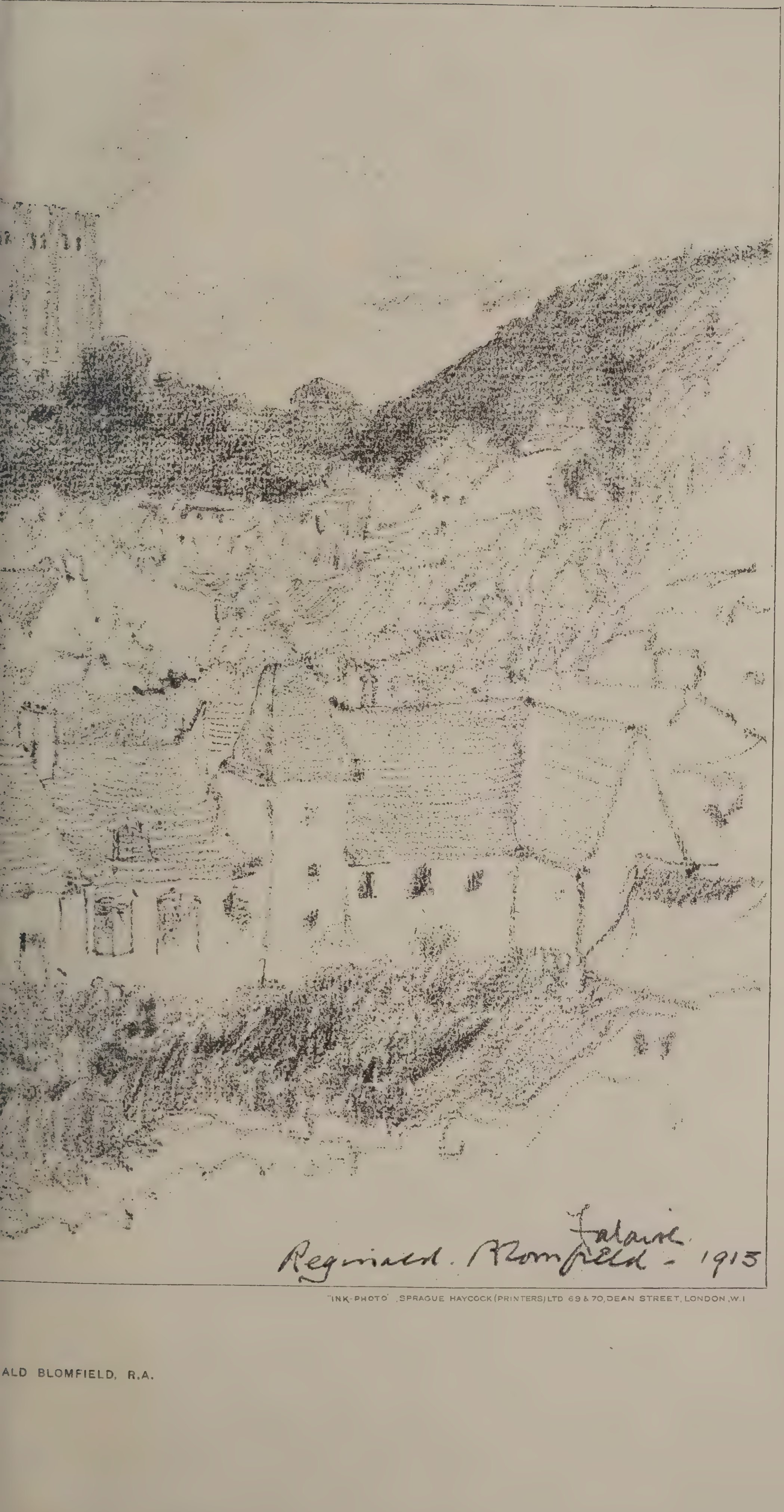

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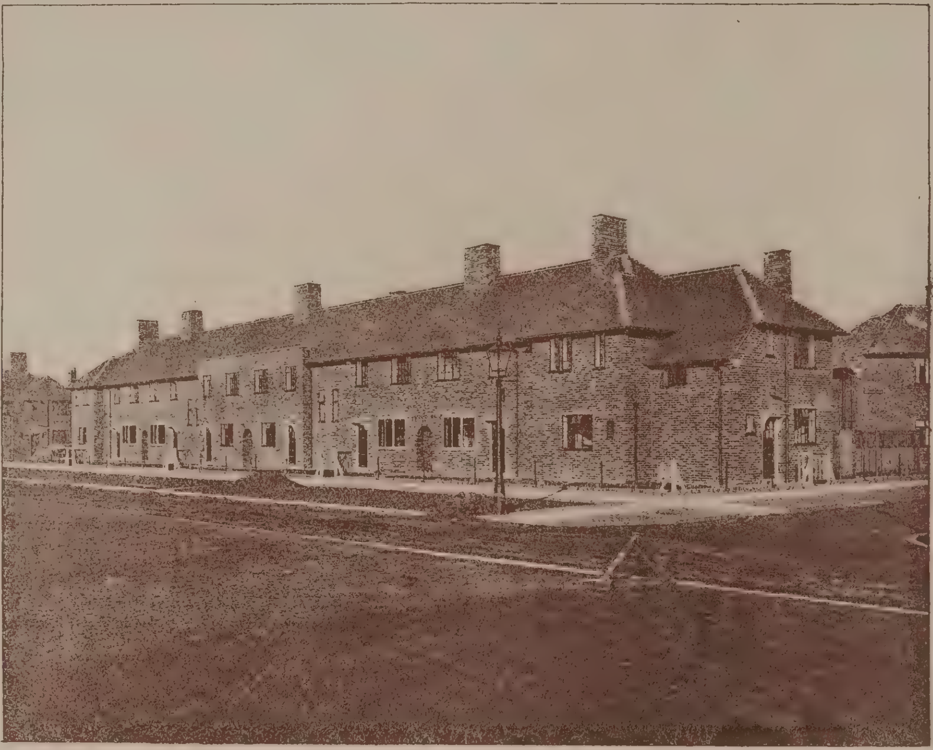
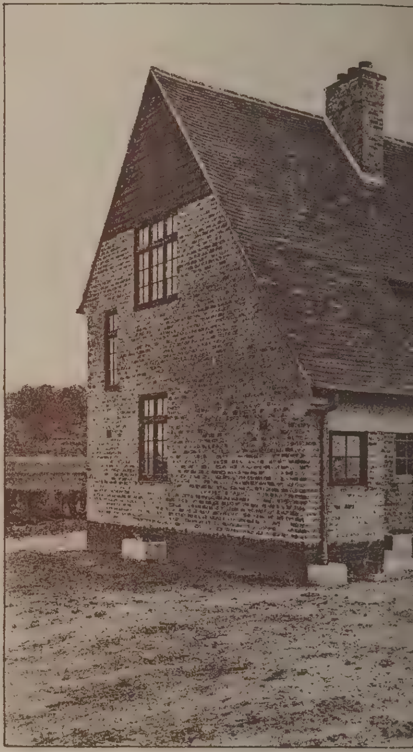


WHITE HART LANE ESTATE,
BLOCK 19. WALTHEOF GARDENS.



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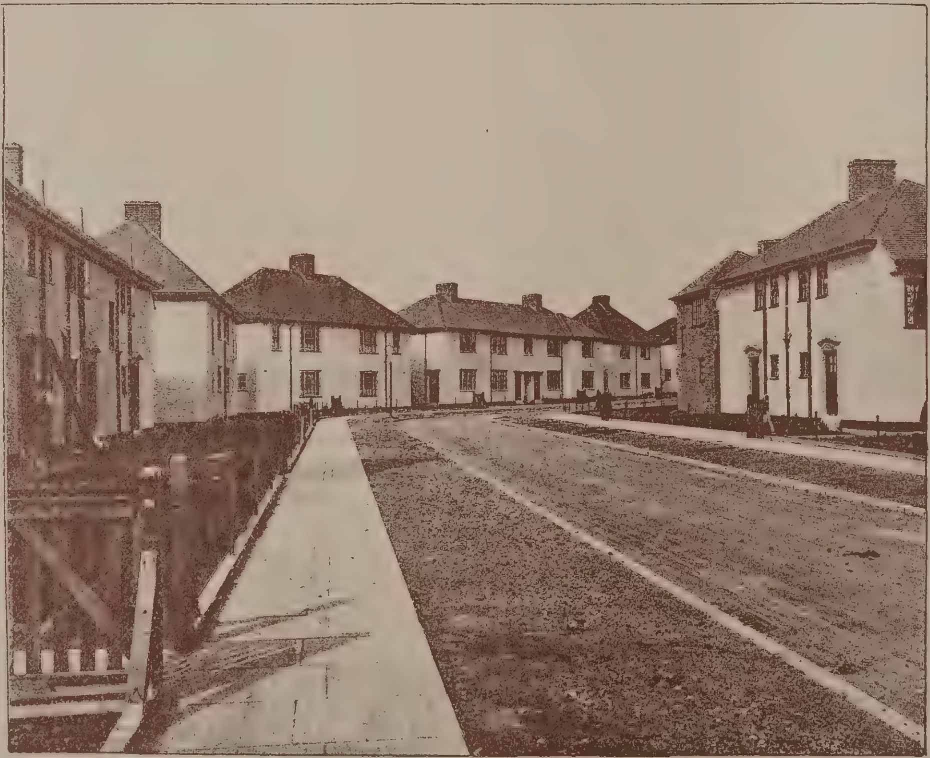

BECONTREE (No. 1)
GENERAL VIEW OF GAINSBOROUGH ROAD FROM JUNCTION WITH BUTLER ROAD.

WHITE H
BLOCK 100

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G. TOPHAM FORREST, F.R.

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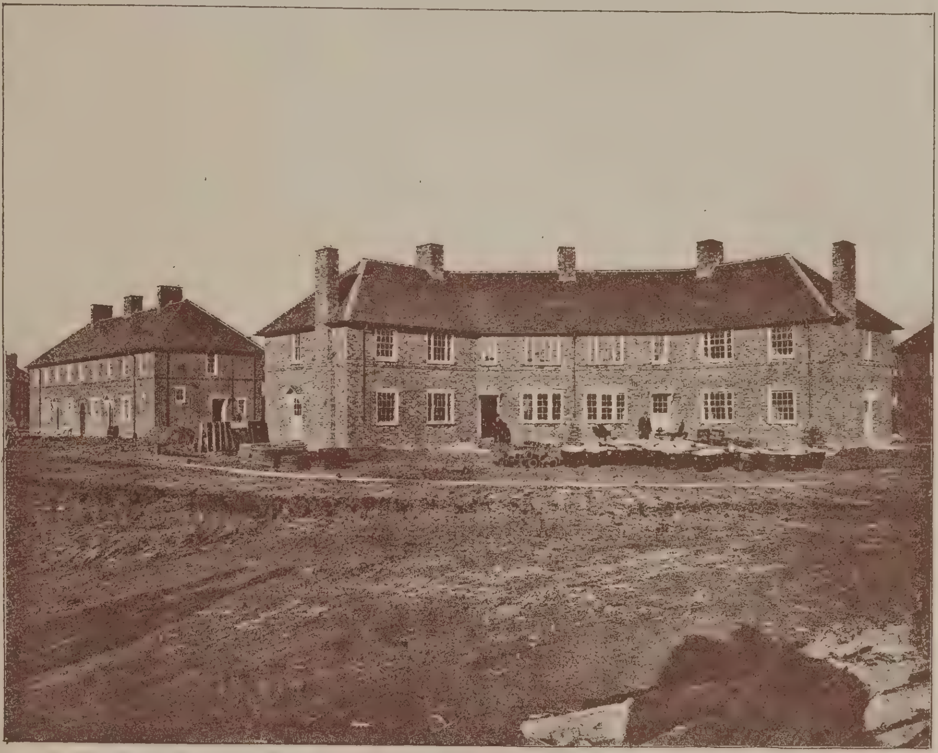
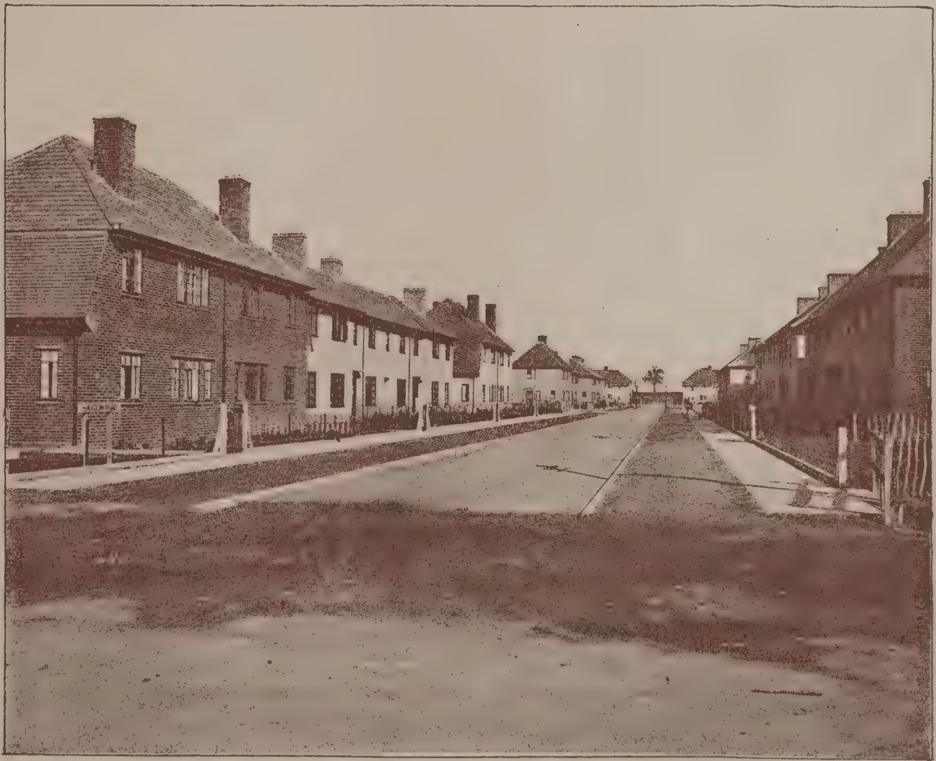


WHITE HART LANE,
BLOCKS 39-40. NEW CAMBRIDGE ROAD.

ESTATE,
RICK ROAD.



BECONTREE (No. 1)
GENERAL VIEW OF HAYDON ROAD, LOOKING EAST FROM BENNETT'S CASTLE LANE.

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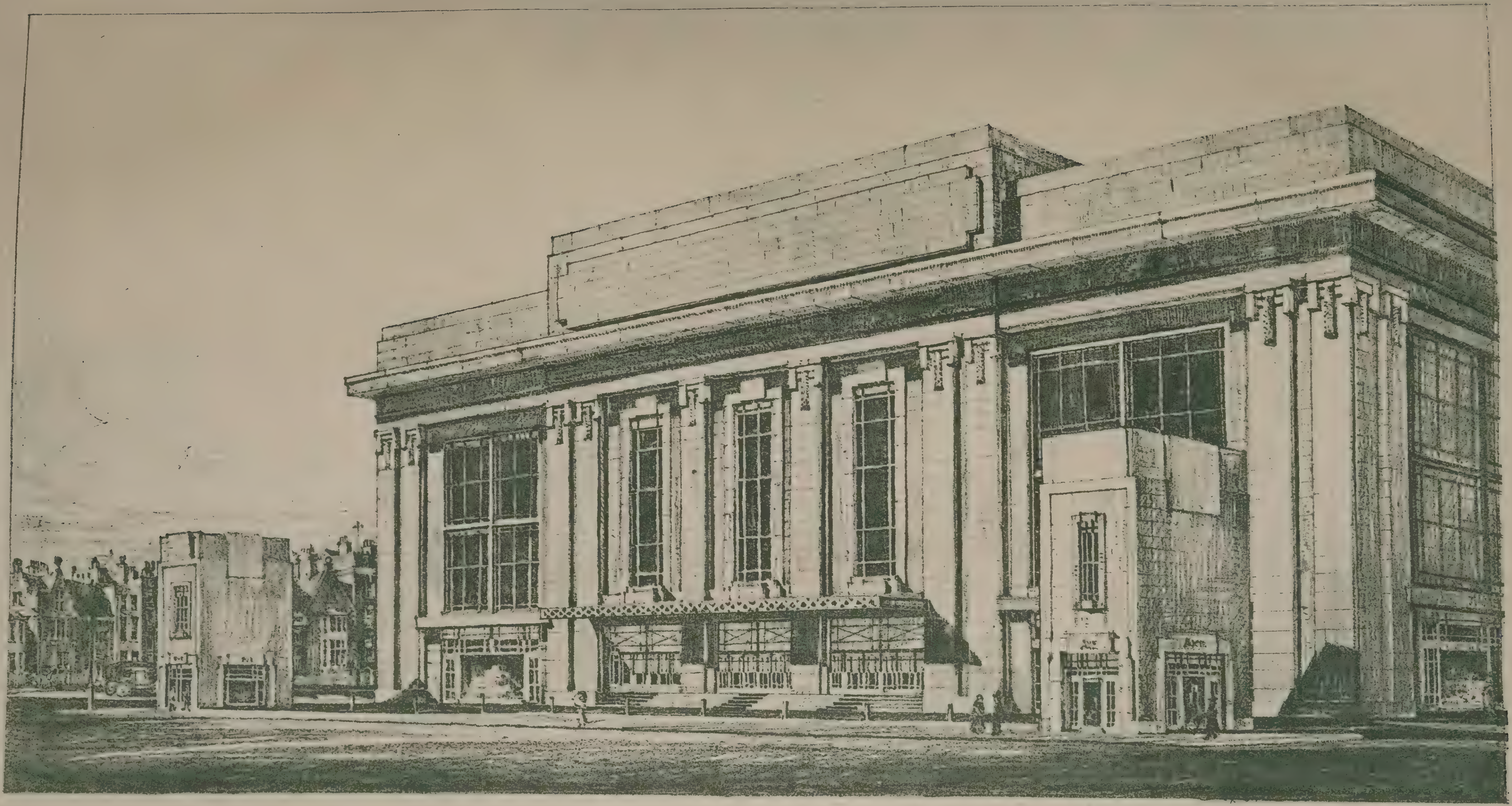
HOUSING.
., Architect to the Council



"INK PHOTO" SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET LONDON, W.1

A COMMERCIAL HOUSE.

LESLIE MANSFIELD, Architect.

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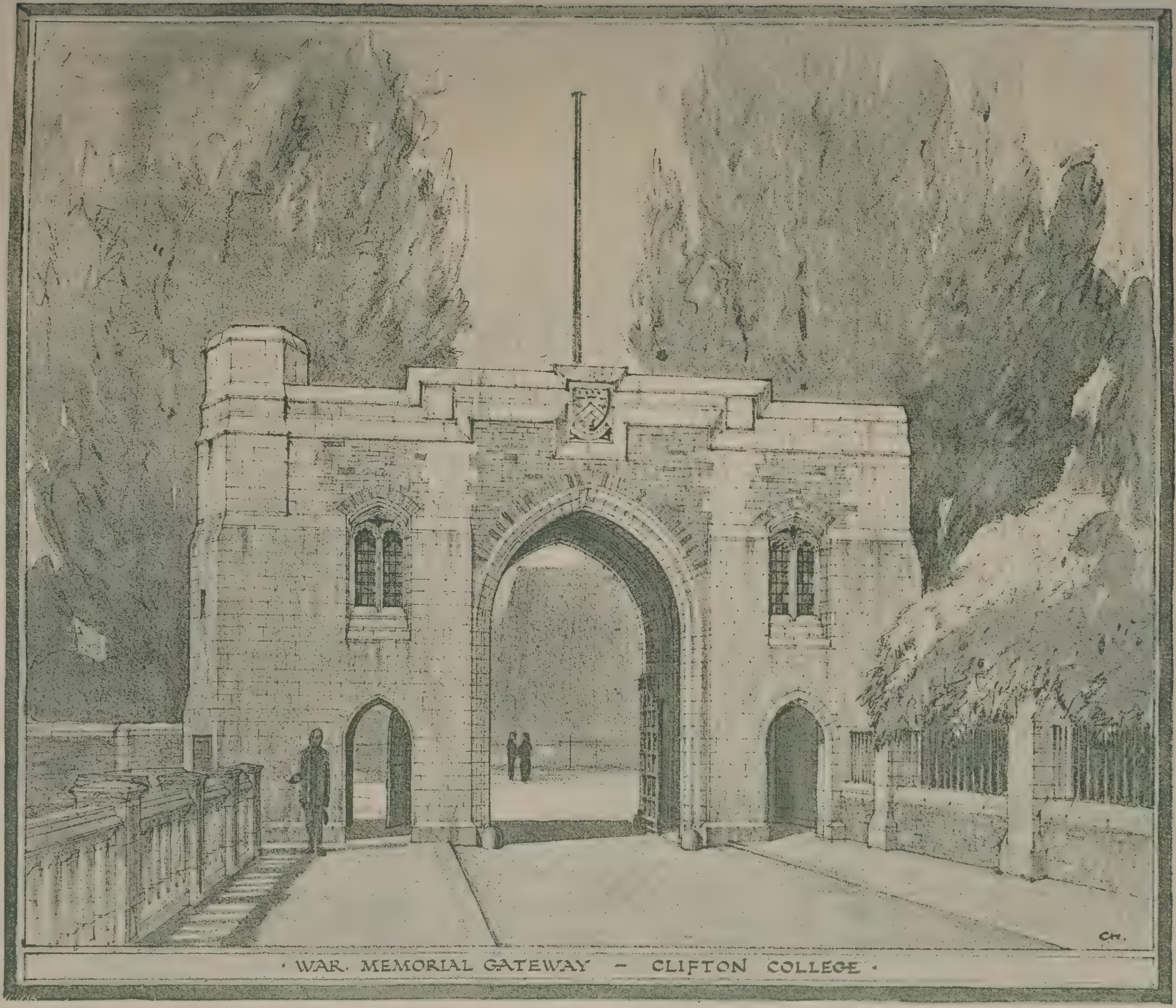
· WAR. MEMORIAL GATEWAY – CLIFTON COLLEGE ·
C.H.

"INK-PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON, W 1

WAR MEMORIAL GATEWAY; CLIFTON COLLEGE.

PERCY ADAMS & HOLDEN, Architects.

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Notes from Ireland.

The past three years or so have been, in Ireland, like an ugly dream. Events have passed rapidly: turmoil and bloodshed, with destruction, have been everyday occurrences, until now even those who were most hopeful have begun to despair of recovery. Yet there are still optimists, and in Ireland, the land of contradictions, it is always the unexpected that happens, so the most commonly expressed view upon the future is, "that you never can tell," for it would be a wise man that could foretell what the ultimate outcome may be. It is difficult at such close perspective to realise what a complete revolution has taken place, socially and politically. Verily, the old order giveth place to the new. Great public buildings, some the glory of the country, and mansions, large and small, by the hundred, have been destroyed, and every day their number is added to. But the revolution is complete. The last remnants of power and influence have passed from the old governing classes to the proletariat, and the bulk of the gentry have left, or are leaving, the country day by day.

Yet, amazing as it may seem, business is still carried on, outwardly at least, much as usual, and though the building trade—that most sensitive of all industries—has felt the depression acutely, and architects have suffered severely, building has not been at a standstill. In Dublin, some of the most important commercial buildings have been erected or re-erected during the past couple of years—some of them, like Clery's, the Selfridge's of Dublin, on a scale to which we are little accustomed here. More branch banks have been built during the past three years than during the previous thirty-three. But then the Irish joint stock banks did amazingly well during the War, and after; and the agricultural interest, from which their wealth is mainly derived, made more money during the War than ever before, though there is now a big agricultural slump. The Irish banks are very conservative, their finance sound, dividends more than maintained, and deposits at record figures. That wonderful institution, Guinness's Brewery, turns over its millions and stands higher financially than ever, while the railroads are torn up every hour, and trains and stations destroyed by the score. The destruction done, considered in terms of money alone, is appalling. The havoc wrought is, from an artistic point, irreparable, for some of the finest houses and the best collections of furniture, pictures, and works of art are gone.

Out of the welter of opinions expressed two opposite views are prominent: the one, that the country is steadily progressing down the incline towards complete anarchy, and that soon the precipice will be reached; the other, that things will surely right themselves, and that, in spite of all that has passed, peace and prosperity will be attained, if hope and courage are maintained. There is much to be said for either view; but one thing is certain, that affairs must be approaching a crisis, and the coming summer should tell much. If the pessimists are right, then nothing can save the country. On the other hand, the bulk of the country, though now inarticulate, is still conservative at heart, and if the gale can be weathered, there are great possibilities. The summarised report of Ireland's trade in 1921, just published by the Department of Agriculture, is satisfactory in so far as it shows that the balance of trade, as reckoned in money values, continues to remain favourable. If, however, we reckon the volume of trade in quantities of goods, then the imports still exceed the exports. Great Britain is a good customer of Ireland, and Ireland is one of her best, as this country comes second to the United States in the volume and value of British trade.

The country is very rich agriculturally; there is no lack of capital; the National Debt, apart from the recent destruction, is comparatively insignificant, the population is considerably less than the country could support under normal conditions; unemployment is only about one-third, proportionately, of what it is in England. In affairs connected with building and engineering, even as it is, imports of manufactured goods are pretty well maintained, and would show no very appreciable decline.

Should peace and order soon be restored, there should be a big boom in the building and allied trades, and although no doubt a great effort would then be made to create and foster home manufactures, it will be many generations, in the most favourable circumstances, before Ireland could hope to establish manufactures to supply all her needs.

Meantime, the Government are financing on fairly generous lines the Housing schemes that were originally promoted on a lavish scale under the Lloyd George Irish Housing Act, the finances of which broke down completely; the schemes about to be carried out are on a greatly reduced scale. Up to the present, however, only a few hundred houses in the entire Free State are in progress. Heating, lighting, plumbing, and other engineering firms say that they are very busy. In addition to Housing, the Government has instituted inquiries into various matters of reconstruction and development: fuel resources, minerals generally, railways, water power, and inland waterways, etc. Great hopes are entertained that if peace and order can be attained, there will be a great and quick revival.

In Dublin some important engineering schemes are talked of, the improvement of the port, the utilisation of the water power of the Upper Liffey for electric lighting and power has recently been favourably reported upon by Swiss engineers, and is likely to be undertaken by the Corporation if and when circumstances permit.

We have lately had an enormous amount of talk and writing on the subject of the Town Planning of Dublin—much of it very ill-informed. It will be recalled, that in June last Upper O'Connell (or Sackville Street)—a street of fine Georgian houses—was destroyed in the beginning of the present fighting, and the Five Courts laid in ruins, the Record Office, with the archives of Ireland since the twelfth century, perishing in the flames. Lower O'Connell Street was destroyed in 1916, and has since been rebuilt, with poor results from an architectural point of view. Needless to say, in present circumstances, the schemes of reconstruction are still very much in the air. A committee styling itself "The Greater Dublin Reconstruction Movement," has produced a scheme and plan of a rather ill-considered nature, mainly consisting of a sort of "General Post" of the various public buildings so far as regards uses, without much to recommend it. On the other hand, last week we had Professor Abercrombie at a public meeting on reconstruction. Professor Abercrombie won the prize offered some years ago by the Marquis of Aberdeen for the best town plan for Dublin, and he produced a very fine plan that might well form the basis of a scheme. Recently, too, we had a brief exhibition of Prof. Robert Atkinson's scheme for Bath—a valuable object lesson in the shape of a very fine civic centre and town plan.

Cork, too, has had a great deal of destruction, and Professor Abercrombie is being consulted there also; but in the meantime the southern city continues in the throes of revolution. A competition for a new city hall and public library for Cork is being promoted.

In the Six County area of Ulster more peaceful conditions now prevail, but the building trade there, too, is very hard hit by a general depression of trade. Mr. Ralph Knott and Mr. Arnold Thornley have been respectively appointed as architects of the new Ulster Parliament House and Government offices in Belfast, and it is said that a start may soon be made with these buildings. In the six counties also Housing is still in abeyance, and Belfast has been passing through a trade crisis; but matters are improving. In Ulster there are also great possibilities of work in the future. Throughout the country towns, north, south, east, and west, owing to the objectionable Irish short-leasehold system, building work has for nearly a century fallen into arrears, and there is much leeway to be made up.

Next to the present conditions of disorder and strife, Ireland has to face another problem, in a sense even more serious—namely, the labour question. Organised labour is in Ireland probably more "advanced" than in any other country, except Russia. It must, however, be admitted, that since the establishment of the Free State, the Labour Party, which is the official Opposition in Parliament, has, under the very able leadership of Mr. Tom Johnson, displayed moderation and a certain quality of statesmanship.

While remaining more or less neutral, the Labour Party has given a certain independent support to the Government. The Republican Party, although holding a number of seats, has not entered the Lower House, and is of course not represented in the Senate. Labour will, however, prove in the immediate future the great question of the hour. The cost of building is still considerably in excess of that in England.

In the course of his presidential address to the Engineering and Scientific Association, the other evening, Mr. T. G. Aston remarked on the strenuous resistance with which every attempt to reduce wages is met. In some cases successful resistance, as on the railways for instance. Railway freights accordingly remain abnormally high, and place the Irish manufacturer and builder at a great disadvantage. Mr. Aston gave a striking instance of the "ca' canny" evil. The Dublin bricklayer, he said, received threepence an hour more than the London bricklayer; yet the latter's output was two and a quarter times greater than that of the Dublin worker. Again, high wages and low output have brought the Dublin shipyards—an industry which is capable of great expansion—to the verge of extinction.

It must be admitted that "profiteering" is still prevalent, and the cost of living for the worker in Dublin is abnormally high. But the two things are interdependent: High cost of living on the one hand, and on the other high wages and reduced output; and so it goes on in a vicious circle.

Royal Institute of the Architects of Ireland.

A meeting of the Council of the Royal Institute of the Architects of Ireland was held at 31 South Frederick Street, Dublin, last week. The president, Mr. George P. Sheridan, F.R.I.A.I., occupied the chair. Also present: Messrs. M. H. Byrne, S. M. Ashlin, L. F. Giron, T. J. Byrne, L. O'Callaghan, F. Hayes, A. E. Murray, H. Allberry, A. G. C. Millar, R. M. Butler, J. H. Webb, F. G. Hicks, W. Kaye-Parry.

The following resolution was passed, and the hon. secretary was directed to send copies of it to the President of the Irish Free State, the Ministers for Local Government and Home Affairs, and to the Dublin Corporation: "That the Royal Institute of the Architects of Ireland views with apprehension any attempt to forestall the provision of a fully considered town plan for Dublin (to be preceded by a civic survey under legislative sanction), as being likely to lead to serious and irreparable mistakes. The Institute respectfully suggests that no official sanction be given to any scheme for the reconstruction of Dublin until such time as a civic survey has been prepared to the satisfaction of a duly constituted town planning authority. The Institute at the same time cordially welcomes any and every suggestion by individuals, or by associations, tending towards civic improvement, provided that such suggestions are submitted in a purely tentative manner and without claim to authority."

A proposal was made and approved that steps should be taken to preserve plans and other drawings of historical interest and value which may be at present in danger of being lost.

Mr. Louis J. Turley, Drogheda, was elected a member of the Institute.

Forthcoming Events.

Friday, February 16.—Institution of Municipal and County Engineers. Meeting of the Metropolitan District at Holborn, to assemble at the Museum Telephone Exchange. 2.30 p.m.

Monday, February 19.—Royal Institute of British Architects. Meeting at 9, Conduit Street, W. Paper by Mr. H. V. Lanchester, F.R.I.B.A., entitled "Architecture and Architects in India." 8 p.m.

Tuesday, February 20.—Illuminating Engineering Society. Meeting at 18 John Street, Adelphi. Discussion on "The Projection of Light," to be opened by Mr. W. J. Jones and Mr. E. A. Marx, Jun. 8 p.m.

Wednesday, February 21.—Royal Academy Winter Exhibition of Decorative Art. Public lecture by Mr. Henry Wilson, entitled "The Everyday Crafts." 3.30 p.m.

Thursday, February 22.—Royal Institute of British Architects. Public lecture at 9 Conduit Street, W., by Mr. J. Alfred Gotch, F.R.I.B.A., F.S.A., entitled "A Note on the Life of Sir Christopher Wren." 5 p.m.

Friday, February 23.—Architectural Association. Members' Smoking Concert at 35 Bedford Square, W.C. 8 p.m.

Saturday, February 24.—Royal Institute of British Architects. Visit to Wren's City Churches.

The Wren Bicentenary.

A series of visits have been planned in co-operation with the Ramble Section of the Selborne Society to St. Paul's Cathedral, the City churches, and other famous works by Wren. They are part of the official celebrations of the Wren Grand Bicentenary Committee, and are entirely outside the ordinary programme of the London Society or R.I.B.A. To cover the cost of the organisation of the rambles, members of the latter will be charged the same rates as members of the Selborne Society—*i.e.*, 2s. for a single ticket for each ramble.

The official celebrations are fixed for Monday, February 26, and include the Special Service at St. Paul's at 2.30 p.m.

The exhibition of Wren drawings opens at the R.I.B.A. Galleries, 9 Conduit Street, and remains open all the week.

Additional tickets can be secured for non-members of the Society: 3s. for a single ticket for each ramble.

These rates will apply to all rambles *except* where a special price is quoted.

Applications for tickets must be made *only* to Percival J. Ashton, 72 High Street, Bromley, Kent.

The list of visits is given below, grouped not in order of date, but according to subjects and whether special application for tickets is necessary:—

Group 1. The City Churches.

In this series, obviously, only a small number of the existing churches can be visited, and the selection has been made not on account of the historical or architectural value of any particular building, but with a view to illustrating certain aspects of Wren's architectural genius. Each church will be described by a special guide.

Tuesday, February 20.—The Domed Churches: (*a*) St. Stephen, Walbrook; (*b*) St. Swithin, Cannon Street; and (*c*) St. Mary Abchurch. Meet in Mansion House Yard (N. end of Walbrook), 2.30 p.m.

Wednesday, February 28.—Churches in the Gothic Style: (*a*) St. Alban, Wood Street; and (*b*) St. Mary Aldermary; St. Mary-le-Bow will also be visited between these two. Meet at St. Alban, Wood Street, at 2.30 p.m.

Friday, March 2.—Examples of the Basilican Type of Plan: (*a*) St. Bride, Fleet Street; (*b*) St. Andrew, Holborn; and (*c*) Christ Church, Newgate. Meet at entrance to St. Bride, 2.30 p.m.

Saturday, March 3.—The Spired Churches surrounding the Dome: (*a*) St. Vedast, Foster Lane; (*b*) St. Augustine, Watling Street; and (*c*) St. Martin, Ludgate Hill. Meet on the steps of St. Paul's Cathedral, 2.15 p.m. There is an alternative visit on this afternoon (see below).

Group 2. Special Saturday Afternoon Visits.

Saturday, February 24.—(*a*) St. Paul's Cathedral and Deanery; meet on the steps of the Cathedral at 2.30 p.m. Or (*b*) Hampton Court Palace; meet at Hampton Court Station at 2.45 p.m. Price of Ramble ticket, 2s. 6d. and 3s. 6d. (including admission to Palace), but excluding rail fare.

Saturday, March 3.—(*a*) City Churches (see above), or (*b*) Greenwich Hospital. Meet at Greenwich Station at 2 p.m.

Group 3. Visits to the Universities.

Thursday, February 22, *Oxford*.—Including the Sheldonian, Wadham, All Souls' and Trinity Chapel.

Tuesday, February 27, *Cambridge*.—Including Trinity Library, Emanuel Chapel, Pembroke Chapel.

Those who wish to attend these more distant visits should apply for particulars of trains, etc., direct to Percival J. Ashton, 72 High Street, Bromley, Kent.

Group 4. Wren's Domestic Work in London.

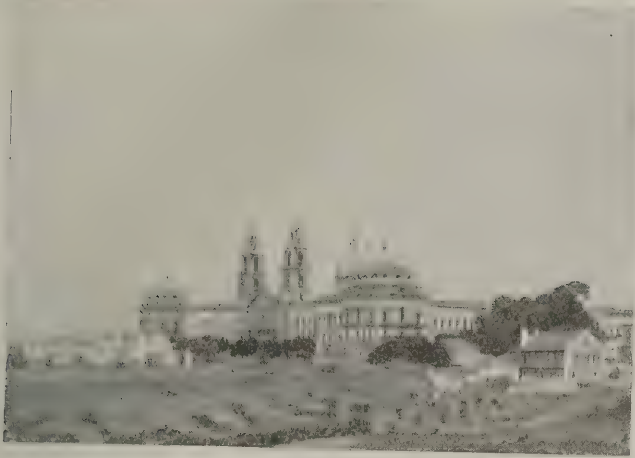
Monday, February 19.—Memories of the Great Fire, under the guidance of Walter G. Bell. The party will proceed by special motor omnibus; accommodation is limited, and tickets, 4s. and 5s. each, *must* be applied for in good time. Meet at Strand entrance to Law Courts, 2.30 p.m.

Wednesday, February 21.—Domestic Work in the City. By special omnibus. Tickets, 4s. and 5s. each, *must* be applied for in advance. Meet at Mark Lane Station, 2.30 p.m.

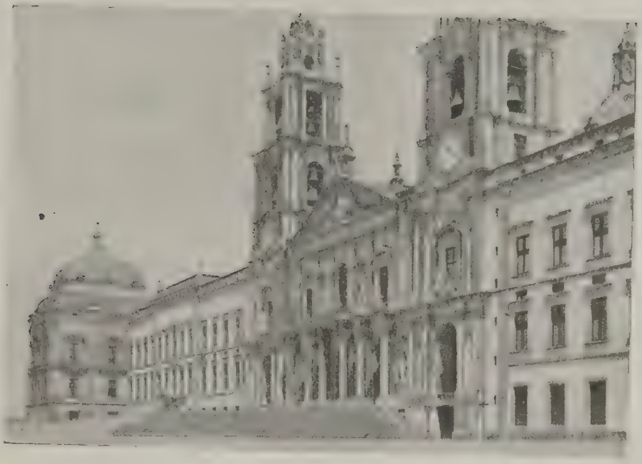
Friday, February 23.—The Royal Hospital, Chelsea. Meet at Sloane Square Station, 2.45 p.m.; thence to the East Gate in Royal Hospital Road.

Thursday, March 1.—Kensington Palace, by special permission of H.M. Office of Works. Meet opposite main entrance on the west side of the Palace, 2.30 p.m.

Mr. John Shanks, Lic.R.I.B.A., last week submitted plans to the Kirkintillock Dean of Guild Court for the erection at Broomhill of a nurses' hostel. The building will have 36 bedrooms, with a sitting-room and lavatory accommodation. The plans were passed.



MAFRA, FROM THE SOUTH-WEST.



WEST FRONT OF THE PALACE-MONASTERY, MAFRA.

Notes from Portugal.

By G. A. T. Middleton.

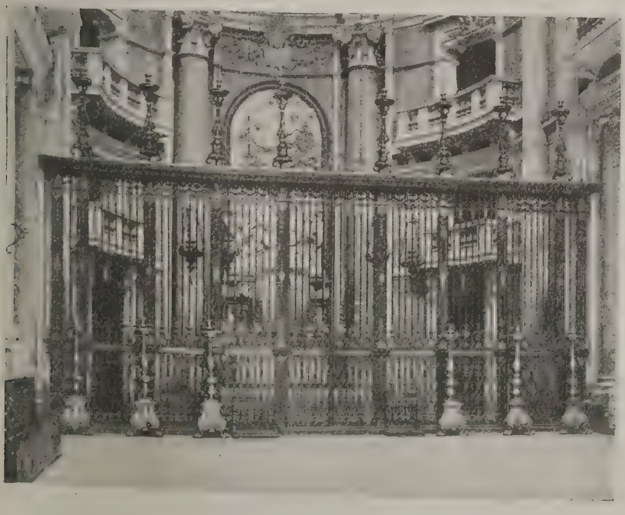
No. XII.—Mafra.

The Palace-Monastery at Mafra is generally recognised, in Portugal at any rate, as one of the greatest architectural monuments of the country. Certainly it is one of the largest, though scarcely so large as some of the mediæval establishments, now in ruins, whose splendour is now largely a matter of conjecture and only to be recognised by the trained eye. Moreover, it is one of the few really large buildings of Europe whose magnitude is obvious. It stands in open country, with only the humble shops and cottages of a tiny country town scattered about it, far from any populous centre and difficult to reach, this being accounted for by its origin. To quote a guide book (correcting the spelling somewhat), " King John V., anxious to have issue to succeed him on the throne, made a vow that on the birth of a son he would erect a magnificent monastery on the site of the poorest priory in his kingdom. On the birth of Prince José, Mafra was selected for the fulfilment of the vow, for on this spot stood a hut in which dwelt twelve Arribidos, the poorest order in Portugal." Frederic Ludwig, a German, was appointed architect, and the foundation stone was laid on November 17, 1717, the church which forms the central feature being consecrated on October 22, 1730; so that it took thirteen years to build.

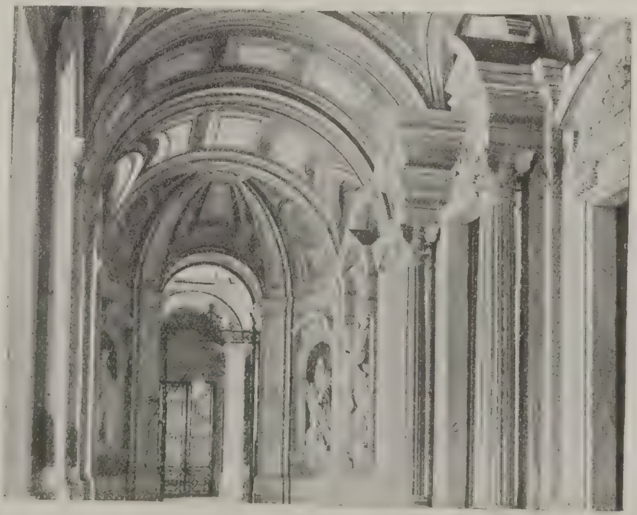
It may well be considered by many that the architect did not rise quite to the height of his opportunity, but this may be said of many another, and in some respects he rose high. It was the scheme, perhaps, which was too ambitious for successful realisation by anyone of that age. Grouped round the church and monastery of quite a small establishment there are two distinct palaces, that for the King on one side and that for the Queen on the other, each fully equipped as for a court of great magnificence. More than this, provision had to be made for all the officers of state and the machinery of government, so that the country could be governed from inaccessible Mafra when the Court was located there! Truly the problem was stupendous.

When first viewed from a distance, the outline is both dignified and picturesque, and in full harmony with the surrounding country, which is far more hilly and better wooded than the photograph suggests. The strong French pavilions at the extreme north and south of the main front hold it well together, and if the towers (carrying Belgian carillons in two storeys) are not quite equal to what Wren would have provided, they are at least as good as any others based on the great English model which was established by him, while the west front of the church is Sansovino-like—a piece of fine enrichment exactly in the right place.

Unfortunately the central dome, which rises over the crossing of the church, is far too small to group well with the rest except from exactly the position whence the general view was photographed.



SCREEN TO THE NORTH TRANSEPT, MONASTERY CHURCH, MAFRA.

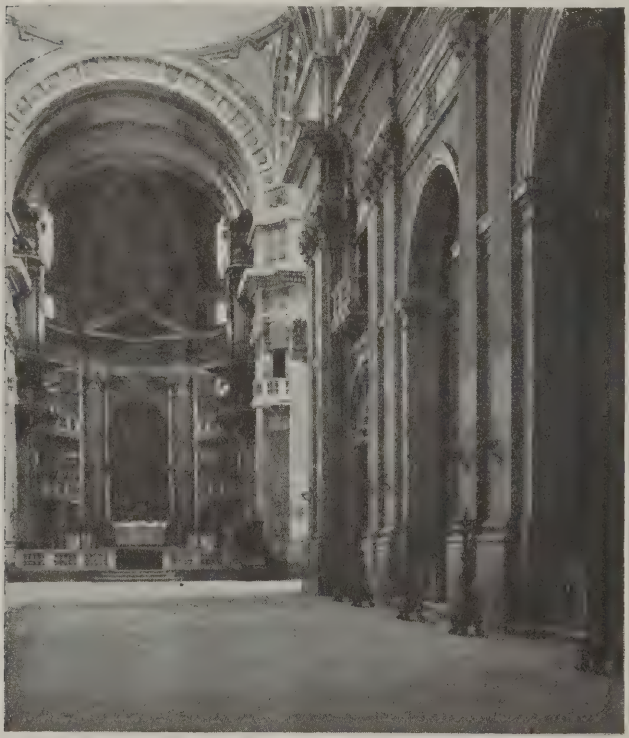


NARTHEX OF THE MONASTERY CHURCH, MAFRA.

It was upon the church that the architect mainly concentrated his attention—the 866 rooms of the palaces, wearisome to perambulate, are comparatively insignificant. But the church is wholly good.

It is entered through a vaulted narthex which extends the whole width of the portico, faced internally, as is the whole of the church, with coloured Portuguese marbles, admirably chosen. The broken pediments are perhaps open to criticism as suggesting lack of restraint—ornament used merely for its own sake—and there may be a lack of spirituality in the sculpture and in the absolute precision of the carved capitals; but then this was characteristic of the period everywhere.

The planning of the church must have been extremely difficult, for provision had to be made for the occupants of the palaces to attend Mass without leaving their apartments. This has been accomplished by a series of doorways opening on to balconies which protrude on corbels into the nave, the central space and even the chancel, and it has been done so cleverly that they are scarcely noticeable until they are pointed out, causing no disharmony, as they easily could have done, but rather enriching what might otherwise have been a somewhat bare interior, breaking up its austerity, but not detracting from its dignity.



INTERIOR OF THE MONASTERY CHURCH, MAFRA.

These are seen most clearly in the photograph of the north transept, where they occur in two storeys above doorways, though the photograph was taken mainly to illustrate the perfection of the Renaissance carving and the wonderful iron screen, covered with gold and colour, with its range of tall candelabra to form a cresting, and others, similar to those in the nave, standing in front; while even others, of equal beauty, are suspended from the roof behind the screen. All this detail is worthy of the closest and most faithful study with brush and pencil and the use of the 2-foot rule, and not merely of photography when on a hurried visit—though even thus much is to be gleaned.

Mr. Alfred Lochart, of Bengeo, Herts, builders' merchant, who died November 20, left estate to the value of £26,056.

The R.I.B.A. Council, at a meeting held on the 5th inst., instructed the Registration Committee to consider the action to be taken to meet the views expressed at the General Meeting on January 29, 1923.

Competition News.

Designs for the laying out of Southsea Common are to be invited by the Corporation as soon as the purchase is completed.

The Committee of Management of the Prestwich Co-operative and Industrial Society invite designs for the erection of a block of five shops and will give a premium of seventy-five guineas for the best design. Applications should be sent to the General Manager at Prestwich, near Manchester.

The South Yorkshire Joint Poor Law Committee are proposing to arrange a limited competition in connection with their Fryston Hall scheme for uncertified feeble-minded people. Premiums of £100, £50 and £25 are to be offered,

The R.I.B.A. have sent a communication to Grand Lodge, urging that there should be an open architectural competition for the new Masonic Memorial Building, and that a deputation should be received.

Scottish National War Memorial.

A meeting of the Main Committee of the Scottish National War Memorial was held in Edinburgh on the 7th inst., when the Construction Sub-Committee submitted a report on the sketch plans by Sir Robert Lorimer, A.R.A., R.S.A., of an alternative scheme which he had developed in accordance with the instructions given at the last meeting of the Construction Committee.

Under the new scheme Billings Buildings will be transformed into a Hall of Honour, with the addition of an apse, in which will be placed the Roll of Honour containing the names of those who fell in the Great War.

The Main Committee, feeling that the sketch plans submitted to them carried out the pledge originally given that the traditional outline of Edinburgh Castle would not be materially altered, unanimously approved of the plans.

"The Architect" Fifty Years Ago.

FEBRUARY 15, 1873.

EXPERIMENTS IN VENTILATION.

The following definite statement of an experiment to ascertain the actual variation that occurs in the atmosphere of a dwelling-room has been published by Mr. W. J. Russell, of the Laboratory of St. Bartholomew's Hospital, and it manifests more strongly than any words can the necessity of supplying dwelling-rooms with repeated draughts of fresh air, and removing the hot gases:—An ordinary sitting-room, 15 feet by 13 feet 6 inches and 10 feet 6 inches high, was well ventilated and filled with fresh air; the door and window were then shut, the gas was (three burners) lighted, and two persons used the room for the rest of the evening. By means of thermometers suspended at different heights, the increase of temperature was noted. The supply of air for these two persons, three gaslights, and the fire found its way into the room as best it could, through the floor and round the not-perfectly-fitting door and window. After three hours the temperature 9 inches below the ceiling had risen 17·5 deg. Fahr.; at 5 feet from the floor it had risen 15 deg.; and on the floor 4 deg. A sample of the air at 1½ feet below the ceiling was now collected, and on analysis it was found to contain 0·69 per cent. of carbonic acid, instead of 0·04 which is present in pure air, and only 20·46 of oxygen in place of 20·96. This atmosphere of hot and bad air in the upper part of the room gradually mixes with the rest of the air of the room, and to see how far this vitiation had proceeded another sample of the air was taken at the same time as the former, but at a height of 5 feet from the floor; it was composed of 0·38 per cent. of carbonic acid and 20·75 of oxygen, an air certainly not to be inhaled long with impunity. We cannot definitely express how poisonous such mixtures are, but we do know that we have only to diminish the oxygen to 18·5 per cent. and increase the carbonic to 2·5 per cent., and then we have an atmosphere in which it is not a question of wholesomeness, but in which candles will not burn.

On the occasion of the opening of its Thirty-Eighth Annual Exhibition, the Architectural League of New York elected Mr. Paul Waterhouse, P.R.I.B.A., as an Honorary Member of the League, in recognition of his distinguished services to the art and profession of architecture.

The Exhibition of Contemporary British Architecture, which was sent over to New York on the invitation of the Architectural League of that city, was opened on January 26. The drawings and photographs made so great an impression on their arrival that the arrangements for the exhibition were altered, and a court was constructed in what is known as the Vanderbilt Gallery of the Fine Arts Building and given up entirely to the English work. The Press comments upon the exhibition are of a very appreciative nature.

Correspondence.

Hot-Water System.

To the Editor of The Architect.

Sir,—I have fitted up a hot-water system in a good country house, with an independent boiler in the basement and 1 inch circulating pipe to cylinder, 1 foot 6 inches diameter and 3 feet 6 inches high (with inside worm for heating). Thence a ¾-inch circulating pipe to half a dozen points.

The water quickly gets extremely hot. But there is very little of it. When the large bath contains 3 or 4 inches of water the supply runs cold. I have to turn off the tap, and in five minutes it is hot again. Also the noise of running water is very objectionable. Are there any silencers made ?

If any of your readers have any similar practical experience, I should be glad of their advice of how to get a greater supply of water. I have been at a great expense and much dirt, which I do not want to repeat.—Yours, etc.,

February 7, 1923. H. T. N.

Registration of Architects and the Architectural Assistant.

To the Editor of The Architect.

Sir,—The inevitable result of the debate at the Institute on Monday, January 29, fortunately gives to all time for thought, and it will be well if we do think before any further attempts are made to rush this question of registration. The Executive Council of the Architects' and Surveyors' Assistants' Professional Union, of which I have the honour to be Chairman, had sent a letter, based on the first draft of the Bill, to the Secretary of the Institute for submission to his Council, stating certain objections to it, and copies of this letter had very courteously been placed in the hands of members attending the meeting. I had also submitted in my name various amendments to eradicate these objections, but owing to the course of the debate they were not taken. It was, however, very much better that Mr. Guy Dawber's amendment was carried than that such amendments should be discussed under conditions which could not secure them ample consideration.

In the breathing space which we now have I would, with your permission, appeal especially to all fellow-members of the Royal Institute not in practice on their own account, to all other architectural assistants, and also to all assistants in the engineering and surveying professions (for it may be their turn next) to consider very seriously their status in the profession and their share in its government.

In the first place let us insist on this, that the fact that an architect is not in practice does not make him any the less an architect ; the qualifying factors for his title must be there, his ability to design, construct and supervise the erection of buildings having due regard to all the laws and bye-laws which apply to the same. Nor in my opinion does the fact that an architect must hire his services to another architect make him any the less a practising architect, for surely he is practising architecture and earning his living by so doing. Acts of Parliament, however, are administered by H.M. Judges, and though every architect employed by another may consider himself a practising architect, though the present Council of the Institute may consider him (I do not know whether it does or not) taking the word "practising" in its broadest sense, the term as used is not usually meant to include a salaried architect, future Councils may not so interpret it, and H.M. Judges likewise may not. That is where Mr. Bernard Dicksee was right in his objection, an objection the A.S.A.P.U. had made by letter, and where Mr. Sydney Perks was wrong ; any Registration Bill must be drawn and worded not only for what we intend, but also for what a Court of Law will afterwards interpret it to be. In this connection I do not forget that a friend of mine, lately deceased, being an assistant in a certain town, entered for, and was awarded second premium in a housing competition limited to architects "in business" in the town ; the award was afterwards quashed by the Town Council on the advice of the Town Clerk, a lawyer, that my friend, being only an assistant, was not in business. For the present then, in spite of or according to the wording of the present Bill, the word "practising" not having been defined, I must continue to use the term "practising architect" in the sense usually understood in the profession, *i.e.*, as one who has an office.

In the second place, it will be obvious that the Draft Bill has been drawn up in favour of this last class of architect and of this class only. Some assistant architects are at present of opinion that architectural assistants have been handsomely treated, because any assistant of five years' standing is admitted as a registered architect, service with any of H.M. Forces to count as being in an office. Now, when all these bona fide architectural assistants are registered as architects, what does it profit them ? They can practise. Certainly, they can do that now if they can find the clients. It is because they cannot that they are assistants. They will not get their proportion of the extra work brought within the folds of the profession. They will not, because they are not in practice ; if they did, such a small proportion of such a small amount of work would be worthless. Will they have their salaries raised because they are registered architects, or will they be employed in preference to unregistered assistants any more than that the assistant of five years' standing is employed in preference to the assistant of less than five years' standing to-day ? Let us admit at once that registration as an architect, whether he be an A.R.I.B.A., or M.S.A., member of an allied society or nothing at all, will not benefit him in the least. Meanwhile he will be called upon to pay an extra annual subscription in respect of his registration, and the total amount of their subscriptions will exceed the total amount of the subscriptions of the practising architects because of the numerical superiority of his class, and he is not to be allowed a voice in the expenditure of it. At the same time, he cannot afford to remain unregistered as such would check his chances of possible promotion and re-employment. This is what the present Bill proposes, and this is exactly what my Union is opposing.

Now, is it not time that salaried architects ceased to take part in the feuds of practising architects and considered the matter from their own point of view ? I appeal to them whether they are members of the R.I.B.A., of the Society of Architects or of no society at all. That the welfare of the whole profession is their welfare I do not deny, but that all professional legislation should be in the interests of one section of the profession only, and that the practising section, and this chiefly or in large part by funds found by architects not in practice on their own account is, I maintain, a gross injustice. This last piece of legislation was promoted by the Council of the R.I.B.A., from which the combination of bye-laws and circumstances at present excludes any representation of assistants, who, of course, are a majority of the Associates, to say nothing of several Fellows and the Licentiates.

The R.I.B.A. is maintained by the subscriptions of its members and the contributions of its Licentiates. For this it promotes architectural education, it maintains a library, uses its influence to promote a high standard of architecture, conducts research as to the value of building material, does good work with regard to building laws and bye-laws, and acts as a trade union in the interests of practising architects. I challenge anybody to show a single piece of legislation it has brought forward in the interests of its salaried members, except perhaps those employed as teachers in its recognised schools, who it has recommended should be able to practise. There is no reason at all why non-practising architects should not share the burden of maintaining the standard of the art, literature, science and education work of the profession ; there is in fact every reason why they should, and also why they should have some say as to how their share of the money spent on these matters is spent. There is also every reason in the world why they should have a say as to how the other part of the income of the Institute is spent, and why some of the professional legislation promoted should be in their favour. At present two almost insuperable barriers operate against any representation by assistant members, namely:—

(1) The Council meets during office hours, and assistants find it impracticable to attend the meetings in consequence, and therefore to be nominated for election.

(2) Assistants are necessarily silent and unknown members of the profession, and cannot therefore command sufficient votes to secure any of the Associate places on it.

The first barrier is removable by resolution of the Council ; we will ask them to alter the time of their meetings, and if they are bona fide in sympathy with their members who are not in practice, they will change it. The second barrier can be overcome by organisation, but it will have to be very thorough and every salaried member of the Institute will have to co-operate if assistant Associates are to be returned. This, however, should be our aim, especially if a further scheme of registration is to be brought forward. *Will members of the Institute not in practice co-operate with the A.S.A.P.U. to secure this, keeping in view :—*

(1) *That the profession is pledged to registration either before or after unification ;*

(2) *That any scheme which diminishes the value of the Institute Diploma must be abortive.*

Yours faithfully,

Chas. McLachlan, A.R.I.B.A.,
Chairman, Executive Council.
A. and S.A.P.U.

36, Victoria Street, S.W.

The R.I.B.A. Bicentenary of Sir Christopher Wren.

The following programme has been drawn up by the Grand Committee formed by the Royal Institute of British Architects with the assistance of other bodies interested to celebrate the Bicentary of the death of Sir Christopher Wren, which took place on February 25, 1723.

Commemoration Service in St. Paul's Cathedral.

The Dean and Chapter of St. Paul's have arranged a special Commemoration Service on Monday, February 26, at 2.30 p.m. The members of the Grand Committee, led by Mr. Paul Waterhouse, President of the R.I.B.A., and accompanied by the Lord Mayor and Sheriffs of the City of London, will assemble in St. Paul's Churchyard at 2.20 p.m., and proceed into the Cathedral.

In the course of the service an Address will be delivered by the Very Rev. W. R. Inge, D.D., Dean of St. Paul's. The anthem to be sung will be "O clap your hands," by Greene, who was organist of St. Paul's, 1718-1755.

The members of the Grand Committee, accompanied by the Lord Mayor and Sheriffs, will then proceed to the Crypt, where the President of the Royal Institute will lay a wreath upon the tomb of Sir Christopher Wren.

The service will be open to the general public.

4 p.m.—The Lord Mayor will entertain the members of the Grand Committee at tea at the Mansion House.

7 for 7.30 p.m.—The Royal Institute of British Architects will give a "Christopher Wren Commemoration Banquet" at the Hotel Victoria, Northumberland Avenue. The members of the Grand Committee and a large number of other distinguished guests have been invited to be present. In place of the usual after-dinner speeches, commemorative addresses, dealing with the life and work of Wren, will be delivered by the President of the R.I.B.A. (Mr. Paul Waterhouse), Sir Reginald Blomfield, R.A., and Mr. Mervyn Macartney, F.S.A., Surveyor of St. Paul's Cathedral.

Exhibitions.

1. *At the R.I.B.A. Galleries, 9 Conduit Street, W.1.*

An exhibition of drawings and photographs illustrating Wren's work, and of books, letters and other relics, will be open from February 26 to March 3 daily from 10 a.m. to 6 p.m. (Saturdays, 10 a.m. to 1 p.m.). The exhibition will include a model of Pembroke College Chapel (which was probably Wren's earliest known work as an architect), original contracts for the stone used for St. Paul's Cathedral and Greenwich Hospital, interleaved copies of the *Parentalia*, original drawings of Hampton Court, drawings of Greenwich Hospital believed to be originals by Wren, Wren's measuring staff, and the flowered waistcoat in possession of the Library of St. Paul's Cathedral. Among those who are lending valuable exhibits are H.M. Office of Works, the Admiralty, the Guildhall Library, St. Paul's Library, the Royal Society, Pembroke College, Cambridge, the Bath and Portland Stone Firms, Ltd., Messrs. B. T. Batsford, Ltd., Miss Lucy Phillimore, the Rt. Hon. John Burns, Hon. F.R.I B.A., the Dean and Chapter of Westminster, and many others.

The exhibition will be open to the public without charge.

2. *At the Museum, Public Record Office, Chancery Lane, W.C.2.*

A small exhibition arranged by the Public Record Office will be open to the public between 2 p.m. and 4 p.m. (except Saturdays and Sundays) in the Museum of the Public Record Office, Chancery Lane, W.C.2. Autograph letters of Wren, original drawings and other contemporary documents will be on view.

Visits to Wren's Buildings.

A programme of visits to Wren's principal buildings, under the general direction of Mr. Percy Lovell, B.A., A.R.I.B.A., Hon. Secretary of the London Society, has been arranged by the Selborne Society. These will include specially guided visits to St. Paul's Cathedral, the City Churches, Chelsea Hospital, Hampton Court Palace, Kensington Palace, Greenwich Hospital, and the Universities of Oxford and Cambridge. In connection with the visit to Cambridge on February 27 there will be an organ recital of contemporary music in Pembroke College Chapel at 5.15 p.m.

Full particulars of these visits, which are open to the general public, are given on page 114.

Memorial Volume.

By arrangement with the Grand Committee, Messrs. Hodder and Stoughton will publish a memorial volume, dealing with various aspects of Sir Christopher Wren's life and work, under the general editorship of Mr. Rudolf Dircks, Librarian of the Royal Institute of British Architects. The volume will contain facsimile reproductions of original letters and drawings of Sir Christopher Wren, numerous reproductions of engravings and original drawings by various artists as well as a number of coloured plates by well-known artists (including Sir G. Kneller's portrait), and contributions by S. D. Adshead, F.R.I.B.A., Professor of Town Planning, London University; Rev. S. A. Alexander, Canon and Treasurer, St. Paul's Cathedral; Sir William Bayliss, F.R.S., D.Sc., LL.D.; Somers Clarke, late Surveyor of the Fabric of St. Paul's Cathedral; J. Alfred Gotch, F.R.I.B.A., F.S.A.; A. R. Hinks, F.R.S., Gresham Lecturer in Astronomy; Arthur Keen, F.R.I.B.A.; Mervyn E. Macartney, B.A., F.R.I.B.A., F.S.A., Surveyor to the Fabric of St. Paul's Cathedral; Ellis H. Minns, Litt.D.; A. Beresford Pite, M.A. (Hon. Cantab.), F.R.I.B.A., Professor of Architecture, Royal College of Art, South Kensington; A. E. Richardson, F.R.I.B.A., Professor of Architecture, London University; Sir William Schooling, K.B.E.; Arthur Stratton, F.R.I.B.A., F.S.A., Reader in Architecture, London University; Laurence Turner, Past Master, Art Workers' Guild; W. Henry Ward, M.A., F.R.I.B.A., F.S.A.; Mr. Edward Warren, F.R.I.B.A., F.S.A.; Maurice Webb, D.S.O.; with Introduction by Sir Aston Webb, K.C.V.O., C.B., F.R.I.B.A., President of the Royal Academy. It will be published on February 26 at the price of £5 5s. and upwards, *and all the profits from its sale will be handed over to the St. Paul's Cathedral Preservation Fund.*

Fancy Dress Ball and Carnival.

The Architectural Students of London have arranged to hold a Fancy Dress Ball and Carnival in the Galleries of the R.I.B.A. on March 9. The profits will be devoted to the St. Paul's Cathedral Preservation Fund. (For tickets and particulars apply to the Secretary, The Architectural Association, 34 Bedford Square, W.C.1.)

Whitgift Hospital, Croydon.

A fully attended Conference of representatives of Societies and other bodies opposed to the demolition of the Whitgift Hospital was held at the Royal Institute of British Architects on February 6, with Mr. Paul Waterhouse, P.R.I.B.A., in the chair. It was decided to take joint action in opposition to the Bill promoted by the Croydon Borough Council.

The following bodies were represented:—The R.I.B.A. Art Standing Committee, the Society for the Protection of Ancient Buildings, the Society of Antiquaries, the Surrey Archæological Society, the Civic Arts Association, the Town Planning Institute, the National Trust, the Commons and Footpaths Preservation Society, the London Survey Committee, the Governors of the Whitgift Hospital, the Whitgift Hospital Preservation Committee, the Whitgift Foundation, the Whitgift Hospital Anti-Demolition Committee.

Colonel Ashley, M.P., Parliamentary Secretary of the Ministry of Transport, has consented to receive on February 21. a deputation from the Societies and Committees interested in the preservation of the Whitgift Hospital. The deputation will be introduced by the Archbishop of Canterbury, and Sir Aston Webb, P.R.A., and others will speak on behalf of the deputation.

International Congress on Architectural Education.

The Council of the Royal Institute of British Architects have decided to hold an International Congress on Architectural Education in London in the autumn of 1924.

The Congress will consist of special meetings for the purpose of considering the history, position and prospects of architectural education with special reference to the following points:—

The Revision of the Methods and System of Obtaining Professional Qualifications.

The Sources of Study. The Use of Travel.

Prizes and Awards of Honour.

Preliminary Studies.

Detailed Subjects.—Draughtsmanship, Study of History, Practical Handwork, Professional Journals, Contact with Works.

Examinations.—Standards, Relation to Practice, Paid Examiners.

Promotion of Post-graduate Studies.—Relation to preliminary and general education.

These meetings will be held for formal and informal discussion. Arrangements will also be made for:—

Social Intercourse.

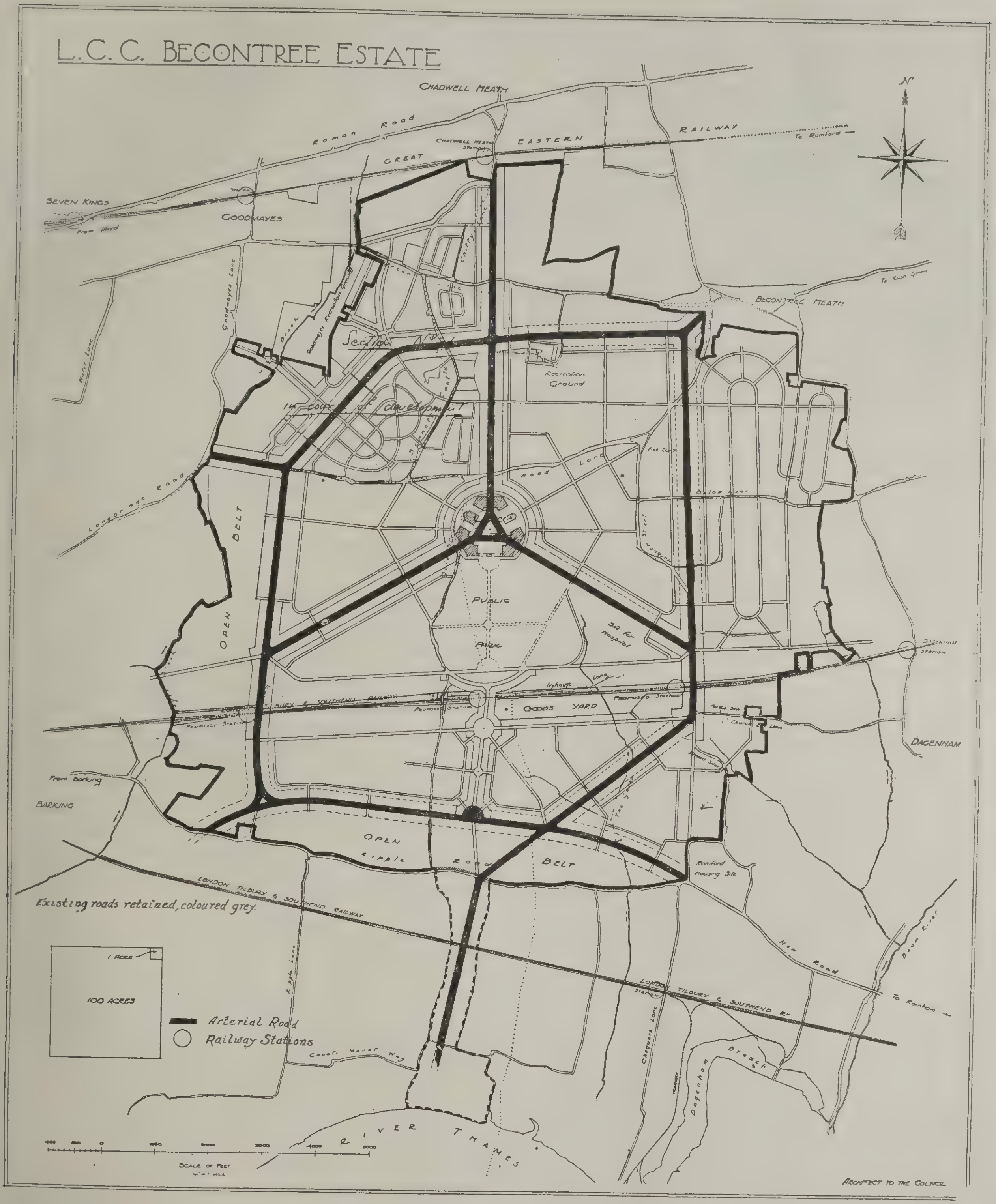
Visits to Schools, Museums, Places of Interest.

A Reception.

An Exhibition.

The subject of the Congress, important at all times to architects, is more than ever important at the present day in view of the vital changes which are being introduced into British Architectural Education by the schools. It is hoped that a national and international exchange of ideas will lead to valuable future developments.

The Organising Committee of the Board of Architectural Education will be glad to receive and consider suggestions for the greater success of the Congress, which should be sent to the Secretary of the Board of Architectural Education, 9 Conduit Street, W.1.



L.C.C. Post-War Housing.*

By Mr. G. Topham Forrest, F.R.I.B.A., F.G.S., F.R.S.E.

(Architect to the London County Council).

For many months prior to the cessation of hostilities, the London County Council examined in a most exhaustive manner the question of the extent to which new housing accommodation would be required in London after the War.

The question was found to be one of extreme complexity, and in October, 1918 (that is one month before the termination of the War), the Housing Committee reported that if they were asked what additional accommodation should be provided within the next five, or ten, or fifteen years, to meet housing demands, they would not be able to give any answer in figures which would be of real value.

At the time of the census in 1911, unoccupied houses in London were relatively numerous, but between that year and 1918 the number had declined considerably, and in the case of working-class accommodation, at an increasing rate as compared with all properties. In the Council's own dwellings the percentage of "empties" had fallen to a very small proportion, and the figures showed that for some time before the War the available housing accommodation on the L.C.C.'s estates was being quickly absorbed, and that since the outbreak of War the only loss that had been sustained had been through changes of tenancies. Not only was this the case, but for some time before October, 1918, there had actually been a long waiting list of applicants for houses and tenements. This being so, the Council decided that action must be taken with regard to the provision of new housing and the reconstruction of insanitary areas, and the sum of £500,000 a year for the seven years following the declaration of peace was voted for the purpose.

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* The major part of the second of two lectures delivered at the R.I.B.A. Galleries under the auspices of the Chadwick Trust.

L.C.C. BECONTREE ESTATE : TYPE C, MANOR SQUARE.

In 1919 the position was reviewed, and a scheme for the whole of the county was drawn up. It was decided to provide within five years from the date of approval of the scheme by the Local Government Board a total of not fewer than 29,000 new dwellings, exclusive of those to be erected upon the cleared sites of insanitary areas. In connection with this scheme it was proposed that about 2,000 of the new houses should be provided on the partially developed estates at Old Oak, Norbury, and White Hart Lane, which the Council already owned, and the remainder on new estates at Roehampton, Bellingham and Becontree, the majority to be on the last named, that is, Becontree, to meet the needs of the eastern part of the county.

The estimated total capital expenditure involved in the acquisition and laying out of the estates and the erection of cottages was about £24,000,000.

This scheme was submitted to the Ministry of Health, and the Government's approval was obtained in January, 1920.

The carrying out of such a programme within a limited period of five years presented extraordinary difficulties, particularly in view of the abnormal conditions prevailing immediately after the War, but notwithstanding all these difficulties, marked progress has been made, and the London County Council has actually provided in the past three years many more houses for the working classes than even the most sanguine dared hope ; in fact, it may fairly be claimed that the apparently impossible has been achieved, seeing that to-day some of the estates have actually been completed, and others have been well advanced.

I. THE DIFFICULTIES TO BE OVERCOME.

When the lecturer entered the service of the London County Council in October, 1919, post-war housing work had been commenced on only one of the estates. A contract had been entered into for the provision of 130 houses and two shops on the Old Oak Estate in Hammersmith. Compared with the huge total in the full programme, the materials and labour required for this small contract were insignificant, but as a matter of fact the contractors found so much difficulty in obtaining anything like an adequate supply of materials or sufficient labour, that the lowest tenderer for the next contract—also a small one—withdrew his tender. This at once revealed certain outstanding difficulties which had to be overcome if the insistent demands of the Government and, therefore, of the County Council were to be met. These difficulties may be referred to under three heads, namely :

(i) Materials.
(ii) Labour.
(iii) Transport.

(i) *As to Materials.*

A careful estimate was made of what materials would be required during the succeeding five years on all the Council's estates. To take two of the principal materials only, it was estimated that during the period 700,000,000 bricks and 300,000 tons of cement would be needed. Or, to take all classes of materials, it was estimated that the Council's full programme would necessitate the provision of 1,000,000 tons per annum, that is, over 4,000 tons per day.

It was at once seen that if anything like such quantities of materials were to be obtained, then some special action was necessary. The Ministry of Health was approached, and immediate steps were taken to anticipate essential requirements by requisitioning material from the Ministry well in advance of actual requirements. Indeed, in order to avoid the possibility of the stoppage of work through lack of materials, arrangements were made to draw from bulk supplies, ordered by the Director of Building Materials Supply—a special branch of the Ministry—for any work in progress. But even this was not found sufficient. As the work proceeded steps had to be taken to obtain materials from other than the usual sources. At the same time care had to be taken that materials were obtained in the cheapest market, in the few cases where more than one source was available for the same class of material : the houses were costing an enormous amount of money as compared with pre-war days, and it was essential to make every endeavour to reduce the cost to a minimum.

It is only now after some three years that anything like a sufficient supply of materials can be obtained. In the early days the Council were forced to accept whatever kind of materials happened to be available, irrespective of the fact that they might not be the most suitable for the purpose. These materials had to be used to the best advantage. That the work was seriously hampered need not be emphasised, but the demand for houses was so great that the only thing to be done was to make the best possible use of the materials which were actually obtainable. This use of divers materials necessitated special consideration if harmonious results in the appearance of the buildings on the various estates were to be achieved.

(ii) *As regards Labour.*

On all the Council's estates great difficulty was experienced in obtaining skilled labour, and it was not seen how it would be possible to obtain anything approaching a sufficient number of building mechanics unless the Government was prepared to render very substantial assistance in the matter. It was estimated that on the largest of the estates to be developed, from 8,000 to 10,000 men per day would be required. Moreover, housing work was being undertaken by authorities other than the London County Council, and it was realised that unless a way could be found out of the difficulty there was no prospect of carrying out the Council's programme within the time specified. One result of this shortage of skilled labour was the passing of a special Act of Parliament which forbade building work of less importance than housing being proceeded with unless specially permitted by the Local Authority. One thousand five hundred applications were dealt with by the London County Council under this Act.

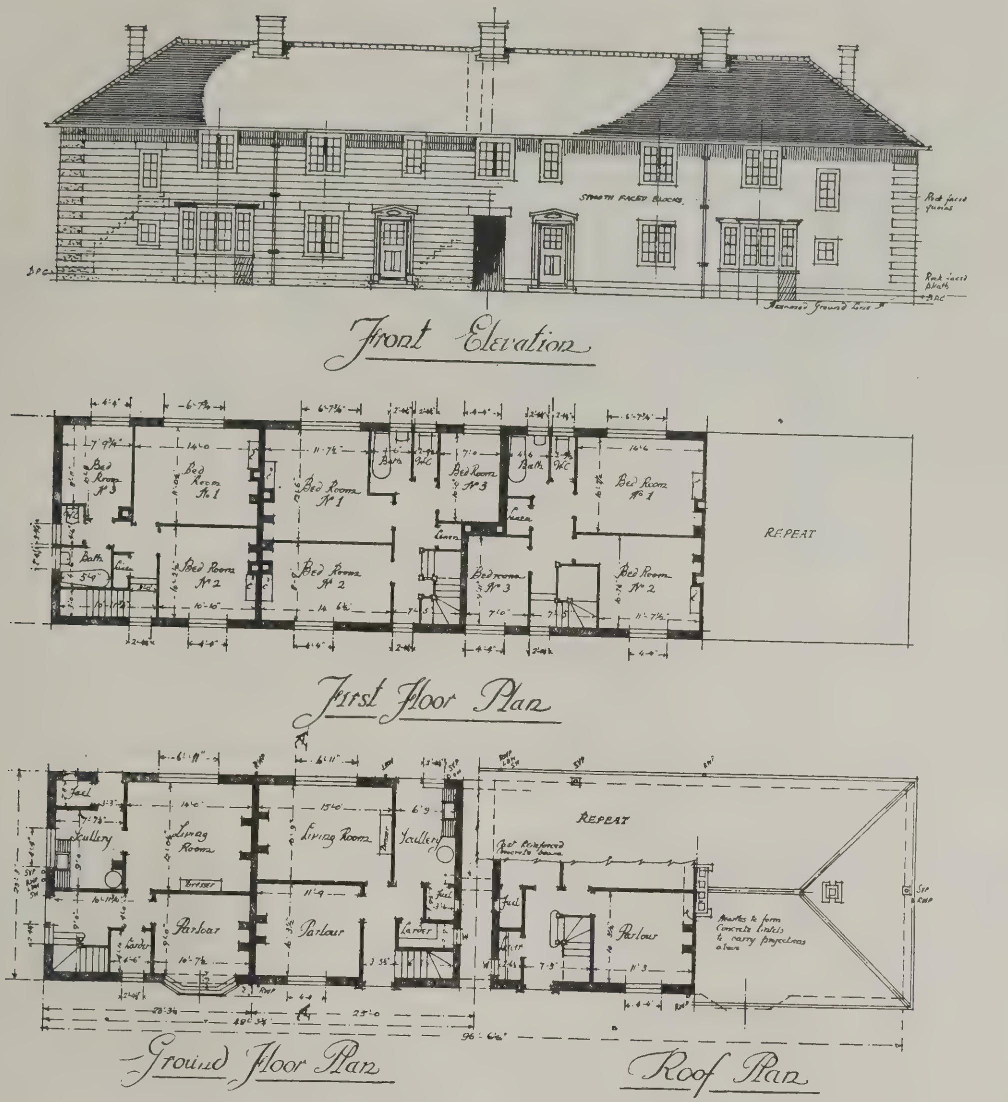
Interviews also took place between the Council and the trades unions with a view to the latter withdrawing their members from work of less importance than that of providing houses for the workers.

But notwithstanding all that the Council could do, it was many months before anything approaching a sufficient amount of labour was obtained.

These difficulties in regard to labour, and particularly the shortage of bricklayers, led to the consideration of various forms of special construction, and concrete blocks were employed in the construction of a number of the houses on the Becontree area, where a geological survey revealed that large quantities of gravel and sand actually existed on the site.

All the patent forms of construction on the market were investigated, and the systems known as "Dry Wall," "Fidler" and "Winget" were adopted. Three new systems, known as Witan No. 1, No. 2 and No. 3 respectively, were devised in the

L.C.C. BECONTREE ESTATE: HOUSES AT JUNCTION OF WOOD LANE AND BENNETT'S CASTLE.



L.C.C. BECONTREE ESTATE: TYPES F AND G, 5-ROOM COTTAGES, NORTH ASPECT.

Council's Architectural Department, and all of these systems have been employed.

(iii) *As to Transport.*

A third difficulty of a serious nature was that of transport. Most of the materials required for the Becontree Estate, and all the material for the other estates, had to be carried by road, rail or water. As regards the Becontree Estate, it was found that the existing country roads were of no practical value for the purpose, and therefore the materials required had to be carried by rail or water.

Further, the only avenues of direct railway supply to this estate were those of the Great Eastern Company on the north and the Midland Railway in the centre and south. Both companies were approached with a view to securing facilities for transport direct on to the site, and it was found that the Great Eastern Railway would have to provide a new siding, and that two sidings, and possibly three, would have to be provided on the Midland lines. It was also necessary for both companies to consider the possibility of dealing with a proportion of water-borne traffic.

The Great Eastern Railway Company had a wharf at Canning Town in direct communication with the site, but it was learned that it would be impossible to utilise any of this wharf for the Council's purposes without a corresponding diminution in other traffic. Wharf frontages in continuation of the Great Eastern Railway Company's wharf were in existence, and it was discovered that these might be rendered capable of use, but there immediately arose the question of the need for additional railway trucks, of which there was a very great shortage.

The points of access to the railway for water-borne traffic were at Dagenham Docks and Thames Haven.

Dagenham Docks are near to the site and are connected to the railway company's system. The information received, however, indicated that the berthing accommodation which could be afforded to the Council would not exceed *two barges per day* under favourable circumstances—an altogether insufficient number.

A large amount of accommodation for craft and ample railway facilities existed at Thames Haven, some miles lower down the Thames, but the jetties here were found to be in a derelict condition, and the railway company was not prepared to embark on any expenditure either for the sidings necessary or for the renewal of the jetties.

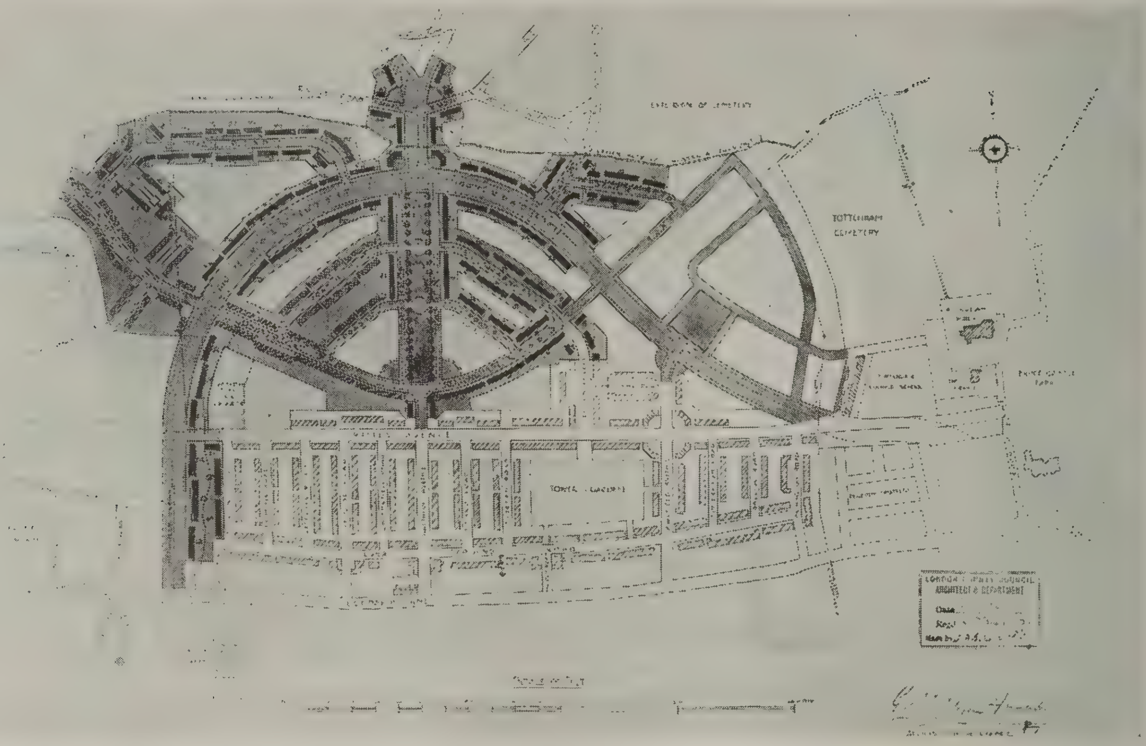
There was also the question of transporting labour to and from the site at Becontree. Assuming that accommodation for half the number of men employed would be provided at or near the site, transport facilities for from 4,000 to 5,000 would be required daily. Inquiries of two railway companies indicated that special traffic arrangements would be necessary, as their existing facilities were already congested.

Similar difficulties were experienced as regards the other estates. It was found, for instance, that even when bricks could be purchased, the railway trucks necessary to transport these could not be obtained. The result was that the work was in many cases seriously delayed, and particularly in the early days. Contractors were confronted with the possibility of not being able to retain the few skilled mechanics whom they had been able to attract to their service, simply because they had not sufficient materials with which to keep them engaged.

This difficulty of transport indicated that if the work was to be proceeded with at all rapidly, then it would be necessary for the Council to make special arrangements. As regards Becontree, it was felt that the only way out of the difficulty was to provide a jetty on the river and connect it up with the estate by means of a new railway.

The jetty was constructed and proved of invaluable service.

The difficulties experienced were of such a serious nature that it was only after the most exhaustive consideration that an answer was found to the simple question, "How is the work to be done, particularly on the Becontree Estate?" At Becontree it was proposed to convert a tract of land, 3,000 acres in



LONDON COUNTY COUNCIL WHITE HART ESTATE GARDEN SUBURB DEVELOPMENT PLAN.
G. TOPHAM FORREST, Architect to the Council.

extent, then covered chiefly with market gardens, into a township with a population of 120,000—that is, five times greater than that of Salisbury and nearly equal to that of Coventry. Such a proposal was something altogether unparalleled in the history of housing. Even in pre-war days, when labour and materials were plentiful, and it was possible to erect houses without incurring financial loss, the proposal would have presented many difficulties. Post-war conditions had, however, intensified these difficulties, and in addition, other difficulties no less serious presented themselves. The work involved comprised the construction of roads and sewers (the main arterial roads alone would be twelve and a half miles), and also new sewage works, the erection of at least 18,000 houses, twenty elementary schools, two secondary schools, one trade school, two continuation schools, five fire stations, four free libraries, two or three police stations, two hospitals, an infirmary, a town hall, a coroner's court, two mortuaries, public baths, 240 shops, institutes, places of amusement, workshops, and so on. It will be appreciated that enormous quantities of materials would be required for such a huge undertaking, the estimated total being about 3,500,000 tons. How could such a work be carried out within the five years specified in the original programme? Should it be divided amongst a number of sub-contractors; should it be done by the direct employment of labour; or should it be entrusted to one master contractor? All of these methods were carefully examined, and it was finally decided that the last was the only practicable method.

The advantages of having one master contractor were apparent when the importance of transportation and the equitable distribution of supplies for such a large undertaking were considered. Such a contractor, by centralising the buying departments, could effect an enormous saving by eliminating competition. Systems could also be inaugurated which would obviate the chaotic conditions bound to ensue if the contract were entrusted to numerous contractors, each acting on his own responsibility.

A master contractor could make an undertaking of this magnitude quite independent of the usual sources of supply for joinery work and, possibly, bricks, by the erection of joinery works, concrete-block factories, smithies and brick-yards. He could set up timber mills not far distant from the Thames. Timber in bulk could be imported by direct shipment, thus eliminating middlemen's profit and economising railway rolling stock.

A big receiving and issuing store attached to the new jetty could be provided, thus ensuring proper control in connection with entry and distribution of all goods such as raw material, timber, and finished goods such as ironmongery, window frames and fitments, etc.

One central staff, highly trained and organised, would be far more easily supervised and less expensive than numerous contractors' staffs.

He would be able to carry out all the work in connection with the construction of roads, sewers, stores, offices, etc.

Moreover, he would be able to make proper provision with regard to transport, and it would be easier for the Council to ensure fair treatment of the workers under one contractor than under a number of different contractors, some of whom might prove unsympathetic in their treatment of the men, and thus create dissatisfaction, which always leads to decreased output.

After the closest examination of all the methods possible, it was decided to employ such a contractor not only at Becontree, but also at Bellingham, the second largest housing estate. The difficulties already experienced on the smaller estates made it clear that one controlling influence was just as necessary for the conclusion of the Council's housing programme on each of the larger estates, as it was in the active military operations during the later and successful period of the war.

The problems connected with materials, labour and transport which confronted the Council at the inception of its programme have now to a great extent been overcome, and considerable progress made in regard to providing new houses.

However, the original programme has been considerably modified by the Ministry of Health, and it is not at present possible to say to what extent the full programme will ultimately be carried out. The Government just now is considering what its housing policy is to be in the future, not only as regards London, but as regards the whole of the country.

II. To What Extent the Programme has been Carried Out.

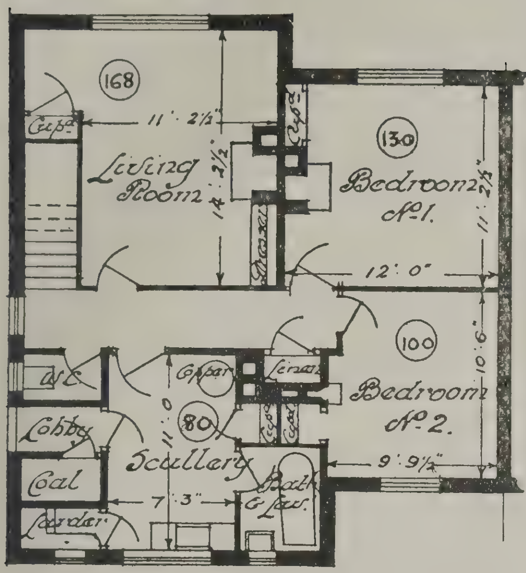
As to the extent to which the programme has been carried out, the lecturer referred in the first instance to the estates which were partially developed before the war—namely, Old Oak, Norbury, and White Hart Lane.

Old Oak.

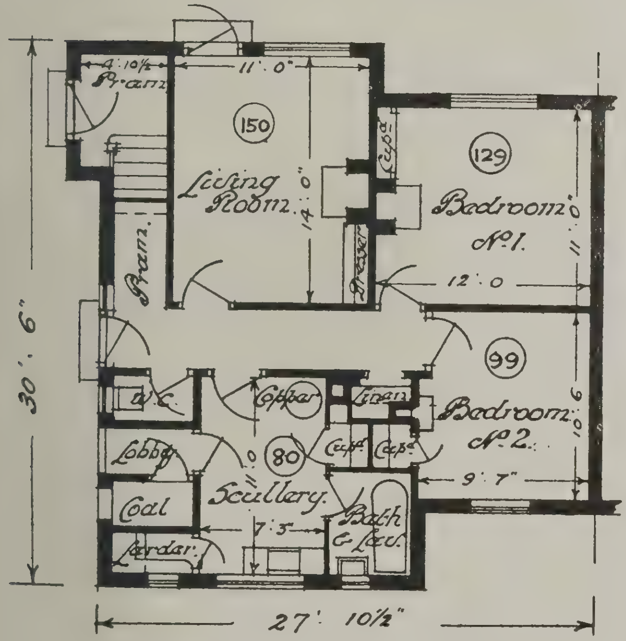
This estate is situated in West London, adjoining Wormwood Scrubs. The western section was completed before the war. The development of the eastern section was commenced in 1919. It was here that a first beginning was made towards carrying out the Council's post-war programme. The new houses were mostly of the pre-war type, partly because the roads were already formed, and the most suitable type of building was that with a narrow frontage but of a greater depth than is usual in the type of house now preferred.

In all the houses erected since the war on this estate a hot-water system has been installed. No such provision was made in the pre-war houses.

The estate has now been completed, and all the houses are occupied.



FIRST·FLOOR·PLAN·



GROUND·FLOOR·PLAN·

L.C.C. WHITE HART LANE ESTATE: 3-ROOM FLATS.

Norbury Estate.

This estate is in Norbury, just beyond the borders of Streatham. It was the first estate purchased by the Council outside the county. About eleven acres remained to be developed at the close of the war, and over 200 houses have been provided since 1919. About half of these houses are of pre-war design, the remainder being post-war. The effect of increasing the size of the houses and altering the design has been that on the second half of the portion just completed, only half the number of houses was provided as compared with the first portion on which the smaller houses were erected.

This estate is now completed, and the houses are occupied.

White Hart Lane.

The layout plan of the White Hart Lane, Estate, Tottenham, shows that a portion was developed before the war. More than 75 per cent. of the new cottages are already occupied. The remainder are in an advanced stage of construction. The number of houses to the acre in this development is about 12 as compared with 24 in the portion developed before the war, and therefore the post-war layout is of a much more open character. The semi-circular road is 100 feet in width, and is a portion of one of the main arterial roads to the north of London.

It has been suggested that possibly some of the persons displaced from the insanitary area known as the Ware Street area might be rehoused in three-storey cottage flats to be erected on portions of this estate now allocated for allotments.

In addition to the provision of cottages on these and other estates, the Council is also providing for ex-soldiers a number of small holdings on an area known as the Shorne Estate, near Gravesend. In all, 29 new cottages are being erected, and 17 old cottages are being adapted. The smaller holdings consist of cottage and outbuildings, together with about ten acres of land. The larger holdings, which are known as dairy holdings, have accommodation for seven to ten cows, and piggeries also are provided. The larger holdings have, in some cases, as much as fifty acres of land attached to them.

The three remaining estates described by Mr. Topham Forrest were Becontree, Bellingham and Roehampton.

Becontree.

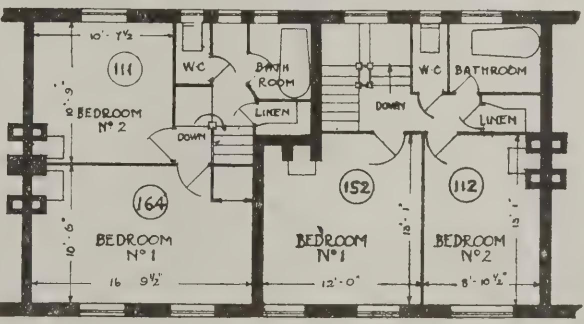
Becontree Estate represents the greatest attempt ever made by any housing authority to provide housing accommodation to meet the requirements of a particular area, and is an endeavour, on a large and comprehensive scale, to meet the immediate needs of the overcrowded population in the east of London. There was practically no vacant land available in the eastern part of the county for the erection of new dwelling accommodation, and no open land in an easterly direction until a point somewhere east of Barking was reached. Moreover, the distances from the congested parts of the East End of London limited consideration of likely areas, to land along the lines of the existing railways.

This site of about 3,000 acres was eventually selected. It lies east of Barking and south of Ilford and Seven Kings.

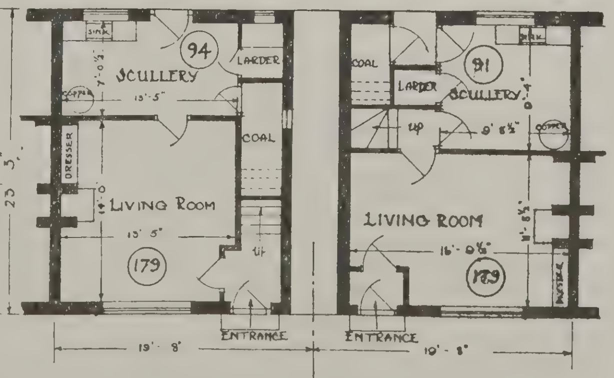
The site slopes very gradually from north to south, and is slightly undulating from east to west, being intersected by several brooks and running streams. It is partly in the districts of three local authorities, Barking, Romford and Ilford, but for simplification of development, the Council decided to support an application to the Essex County Council for the inclusion of the whole estate in the Barking Town urban district.

An open belt, or "breathing space," has been provided on the boundaries of the estate, particularly on the western side. Wherever possible, existing roads, farmhouses and cottages have been retained and incorporated in the general scheme. Advantage has been taken of the Parsloes Park, in the centre, to form a central park for the estate. Arterial roads, varying in width from 80 feet to 120 feet, have been planned, some of which form part of the Ministry of Transport's road scheme for the eastern area, and others for connecting up with Chadwell Heath Station on the Great Eastern Railway, and with the new jetty on the river. These roads have been designed to give through communication, and the "ring roads" which traverse the estate are planned for double tramway tracks. Along the arterial roads a reservation 150 feet wide has been made for the erection of shops and other commercial buildings. Sites have been allocated for public buildings, and also for markets and shopping centres.

The drainage of the area presented a complex problem. It

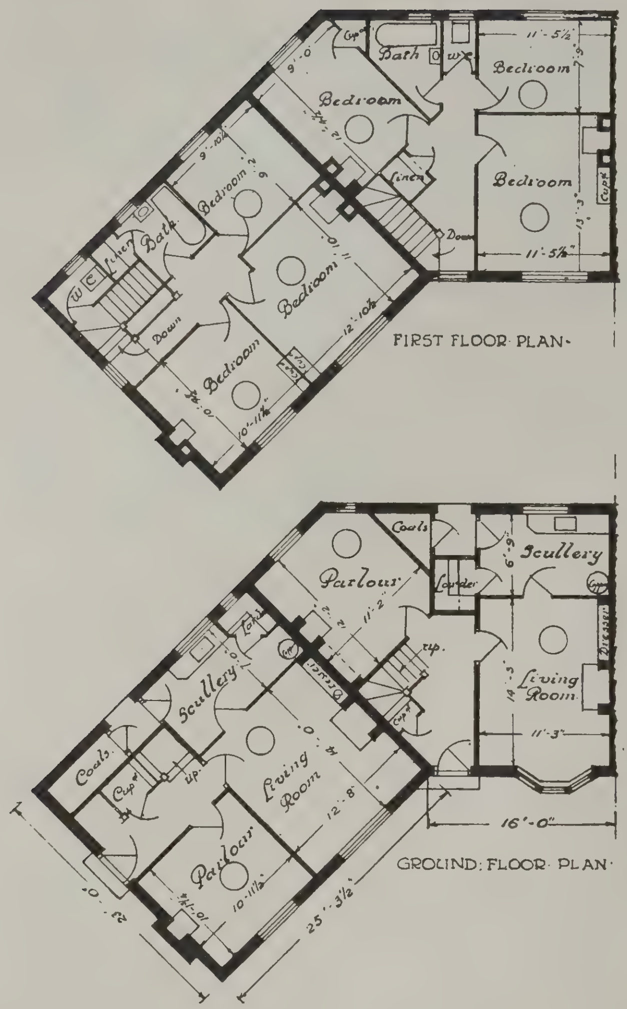


FIRST FLOOR PLAN



GROUND FLOOR PLAN

L.C.C. WHITE HART LANE ESTATE: TYPE A.



L.C.C. WHITE HART LANE ESTATE.

was originally hoped to augment the existing drains and sewers, but an entirely new system was found to be necessary, together with a new outfall.

Certain areas of the estate, particularly on the north and east sides, and also a small portion between the railway and the River Thames, have been proposed for industrial purposes, and a corridor road connecting the estate with the jetty on the river side will facilitate transport in this connection.

A Civic centre is planned in the centre of the estate, and is designed to form an important architectural feature to accommodate administrative and public buildings necessary for a township of the size contemplated. The radiation from it of three main roads, together with the importance of the buildings to be erected thereon, will impart to the centre a duly impressive and dignified character.

The first section of the estate (over 400 acres in extent, and known as the Ilford section), upon which work was commenced in the autumn of 1920, is to the north-west. It comprises 2,880 houses at about fifteen to the acre, of which 2,300 are completed and occupied, and the remainder well advanced.

The second portion of the area to be developed is in the south-east corner where 1,000 houses are to be erected.

The whole of the work was entrusted to the firm of Messrs. C. J. Wills & Sons, Ltd., public works contractors.

The new cottages provided consist of six, five, four, and three rooms, and there is a number of three- and two-roomed flats. Houses are being constructed in both brick and concrete. All the cottages on the estate contain a living-room, scullery, separate bath-room and w.c., fuel store and well ventilated larder. In the five- and six-roomed houses a parlour is provided. The dwellings are planned on comparatively wide frontages without back additions, thus ensuring unobstructed light and air.

In all but 200 houses, an alternative method of obtaining hot water over and above that from the boiler in living-room range is provided by the installation of a gas water-heater. Gas cookers are provided in each cottage and flat. In the second bedroom a gas fire is built in.

Bellingham.[*]

The Bellingham Estate has 2,089 houses and flats, and is one of the largest State-aided schemes approved by the Minister of Health.

It is about 250 acres in extent, and is situated in Lewisham, about nine miles from Charing Cross.

The housing portion of the estate—about 175 acres—is, roughly, a triangle enclosed on the west by the Mid Kent branch of the South Eastern and Chatham Railway, on the east by the Catford loop line of the South Eastern and Chatham Railway and on the south by Southend Lane.

The area is served by three stations, of which Bellingham is the most central. Trams and omnibuses pass close by along the Bromley Road.

The housing portion includes twenty acres for allotments, sites for two schools, churches, shops, etc.

Fifty-two acres are reserved for leasing, and 23 acres for market gardens, etc. Provision has been made for 26 tennis courts.

The rooms provided are of the maximum sizes specified in the "Ministry of Health Manual."

To give some idea of the magnitude of the estate, it may be pointed out that over 32,000,000 bricks and 18,000 tons of cement were used. Seven miles of roads were formed, and twelve miles of sewers laid. The greatest number of men employed at any one time was 3,226.

The contract for the whole of the work, including the provision of the houses, was entrusted to Sir Robert McAlpine & Sons, public works contractors. It was signed on September 16, 1920, and the last house was completed exactly a week ago.

All the houses on this estate are of brick construction with either tile or slate roofs.

On such a large estate it was necessary to make provision for two new elementary schools.

The plan of the first of these to be provided is a new type for London, and whilst it is exceptionally economical in construction, it embodies the results of the latest researches into the value of fresh air in the life of the child.

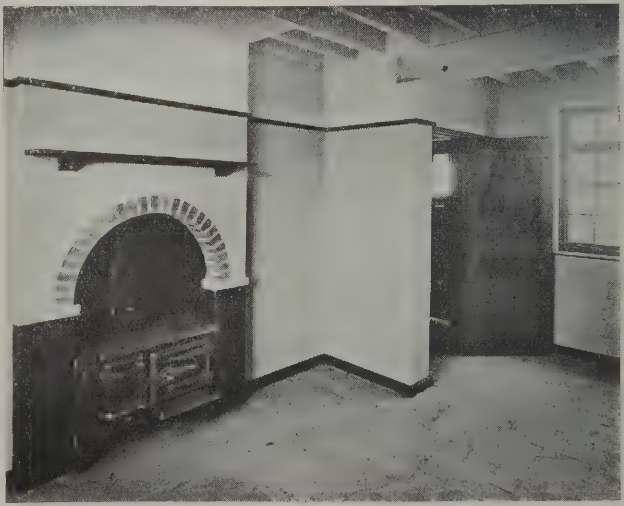
Roehampton.

The Roehampton Estate is situated between the Upper Richmond Road and Putney Heath. The northern portion of the site, to the extent of about ninety acres, has been reserved for development by the Council for the housing of the working classes. Sites have been allocated for schools, shops, allotments, open spaces, etc.

The scheme for the whole estate provides for the erection of approximately 1,200 houses comprising two- and three-roomed maisonnettes, and three-, four- and five-roomed cottages combined in blocks of various sizes.

A first portion has been developed, and over 600 dwellings have been erected, all of which are occupied. The completed houses have separate bathrooms (with lavatory basin, except in the case of the three-roomed cottage), a hot-water system, supplying bathroom and scullery, and space for a perambulator or cycle.

On this estate, as, indeed, on all the Council's estates, particular attention has been directed to the grouping and aspects of the various blocks, in order to secure the maximum amount of sunlight in the principal rooms. A scheme of seclusion is created by the judicious use of feature blocks as closing vistas, and this will be enhanced as the shrubs and trees, included in the general scheme, mature. In framing the layout and designing the cottages, special regard has been paid to the preservation of the amenities of the neighbourhood and natural features.



L.C.C. SHORNE ESTATE. FIREPLACE IN LIVING ROOM.

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[*] An illustrated description of this estate, together with its school, was published in THE ARCHITECT of January 14, 1921.

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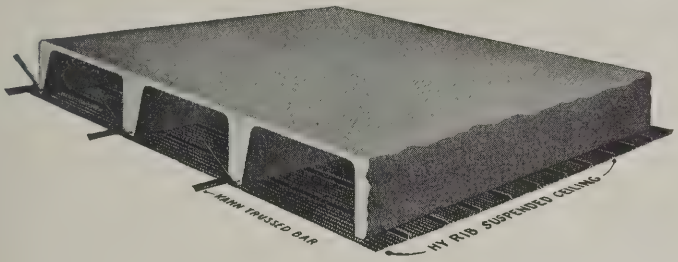

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CONCLUSION.

Under the Council's post-war housing programme, the first of the new cottages was finished on February 7, 1920—that is, exactly three years ago. Since that date nearly 6,800 cottages and tenements, or an average of more than seven per working day, have been completed. In this way, new accommodation has been provided for no less than 52,000 persons, which is more than the total provision made by the Council in the fifteen years preceding the war. The number of cottages erected in the three years is nearly twice the number provided by the Council during the whole of its operations in the previous 27 years.

With the completion of the programme as modified by the Ministry of Health, accommodation will be provided for a total of about 66,000 persons.

These results have been accomplished notwithstanding the very grave difficulties already described, but conditions in the building trades are now approaching the normal, and if the Minister of Health should decide that the Council is to proceed to carry out the whole of its original housing programme, then there does not appear to be any great difficulty in the way of completing it within a comparatively short period.

Norfolk and Norwich Association of Architects.

The annual meeting of the Norfolk and Norwich Association of Architects was held at Curat's House, Norwich. Mr. E. T. Boardman, F.R.I.B.A., president, in the chair.

The annual report of the council and the balance-sheet were adopted.

The report stated the total membership on December 31 was 63, comprised as follows: Full members 37, associate members 19, honorary members 7. During the year Mr. J. L. Carnell, A.R.I.B.A., was elected F.R.I.B.A., and Mr. E. H. Skipper was elected A.R.I.B.A. Two exhibitions of drawing had been arranged. (1) The R.I.B.A. prize competition drawings held from December 6 to 15, at the Castle Museum, was opened by the Lord Mayor, and aroused much interest. (2) The exhibition of specimen testimonies of study was arranged to be held at the Technical Institute, Norwich, from January 8 to 19, 1923. In February, 1922, the president was elected to serve on the R.I.B.A. Unification and Registration Committee. Owing to the change of policy of the R.I.B.A. Council following on the 1922 elections, this committee was disbanded, and a Registration Bill had been prepared. This Bill had been very carefully considered by the Council, who recommended that the Unification and Registration Committee should complete its work. A competition open to associate members was held during the year, the subject being divided into measured drawings and sketches. Only three sets of measured drawings and two sets of sketches were received. Messrs. E. T. Boardman and E. W. B. Scott were elected to the Building Advisory Committee of the Norwich Education Committee. Mr. G. J. Skipper was appointed to represent the Association on the R.I.B.A. Committee on Housing, and was also elected to serve on the Wren Bi-centenary Committee. The Council considered the question of quantities, and recommended that in the case of ordinary works exceeding £500, contractors who were invited to tender should be supplied with bills of quantities. The Council noted with pleasure a revival of interest in the affairs of the profession among architects and also a great increase of public interest in architecture.

The following were elected officers and members of the Council for 1923:—President, Mr. E. T. Boardman, F.R.I.B.A.; Vice-Presidents, Messrs. G. J. Skipper, F.R.I.B.A., and J. W. Cockrill, A.R.I.B.A.; Hon. Secretary, Mr. E. W. B. Scott, A.R.I.B.A.; Council members, Messrs. E. H. Buckingham, A.R.I.B.A., C. Upcher, and S. J. Wearing, A.R.I.B.A.; Associate Member of Council, Mr. A. T. Wright; Hon. Auditor, Mr. J. O. Bond, Lic.R.I.B.A.

The prizes awarded for the competitions for measured drawings and sketches to C. J. Messent, A. E. Warren, and G. S. Buckingham were then presented.

It was announced that two free public lantern lectures would be given at the Technical Institute on Fridays, February 16 and March 2 respectively, and that an exhibition of architectural photographs would be held in the spring.

In connection with the Ashington Coal Company's development scheme at Linton, plans were passed last week by the Morpeth Rural Council, for 21 five-roomed houses and 73 three-roomed houses. The plans were a decided improvement on the houses recently built there, stated the inspector. They all had a hot and cold water system, with the addition of a bathroom and scullery.

Gloucestershire Architectural Association.

The thirteenth annual general meeting of the Gloucestershire Architectural Association was held at 65 Northgate Street, Gloucester (by kind permission of Messrs. Stratton Davis and Yates), Mr. S. H. Healing, M.S.A., President, occupying the chair.

The Council's report, which was received and approved, detailed the activities of the Association during the past year, and referred to the increased membership, and the satisfactory conclusion of negotiations for affiliation with the Royal Institute of British Architects by federation with the Bristol Society.

The President referred to the great loss sustained by the Society by the death of Major E. W. A. Carter, who was an Honorary Fellow, and always took the greatest interest in architectural matters.

The following members were elected to fill the various offices during 1923:—President, Mr. A. H. Smithson, M.S.A.; Vice-Presidents, Messrs. R. S. Phillips, F.S.Arch., and G. P. Milnes, A.M.I.C.E.; Council, Messrs. S. H. Healing, M.S.A., W. Leah, P.A.S.I., H. T. Rainger, A.R.I.B.A., and D. N. London (Assoc. member); Hon. Corres. Sec. for Stroud, Mr. T. Falconer, M.S.A.; Hon. Corres. Sec. for Cheltenham, Mr. T. Overbury, M.S.A.; Hon. Gen. Sec., Mr. H. Stratton Davis, M.S.A.; Hon. Treasurer, Mr. D. N. London, L.S.A.; Hon. Auditor, Mr. H. F. Trew, M.S.A.; Hon. Solicitor, Mr. H. H. Vowles.

The programme for 1923 was arranged, and it was decided to hold one or more loan exhibitions of prize drawings in Gloucester during the year. The meeting closed with a hearty vote of thanks to the retiring President and Secretary (Messrs. S. H. Healing and W. Leah) for their work on behalf of the Association during the past two years, special reference being made to the generous hospitality of the President on the occasion of the summer excursion, and the energetic manner in which the Hon. Sec. had dealt with matters affecting the interests of members and the profession generally.

Manchester Building Trades Exhibition.

It is nine years since Manchester had a Building Exhibition. Doubtless this is yet another consequence of the war and the upheaval which has followed it. The omission is now, however, to be made up, and from Tuesday, March 6, to Saturday, March 17, the City Hall in Deansgate will be occupied by an exhibition which should arouse much interest among the building trade of the North. It is being organised by Provincial Exhibitions, Ltd.—a body which represents very considerable experience in this class of work—and promises to be a genuine success. A large number of high-class firms will be showing. They are representative not merely of local activity, but also the building industry of the country as a whole. The City Hall is the largest permanent exhibition building in the provinces, containing as it does a floor space, excellently lighted, of 36,000 feet. It is very accessible from the centre of the city. Manchester, it may here be remarked, boasts a population of no less than nine millions within a fifty miles radius. The organisers quote the dictum of the Ministry of Health that "the quickest and cheapest solution of the housing problem is private enterprise." It will be up to the North of England to give a fillip to the trade in general. Many shrewd observers are just now seeing signs of a real revival of industry. Let the building trade in the North lead the way.

The Grimsby Corporation Electric Lighting Committee have decided to recommend the Town Council to proceed with a scheme of extensions at the power station, estimated to cost £75,000.

Mr. Percy Robinson, F.R.I.B.A., has prepared plans for a considerable enlargement to the Griffin Hotel, Boar Lane, Leeds. It is proposed to provide an additional sixty-one bedrooms as well as extra public rooms.

Mr. Alfred Weeks, F.S.I., formerly lecturer on "Quantities" at the Cardiff Technical College and quantity surveyor under the Ministry of Health, has commenced practice at 35 Commercial Street, Newport, Mon., as a chartered quantity surveyor.

The eight hundredth anniversary of the Church of St. Bartholomew the Great, Smithfield, will be celebrated at special services on Sundays, March 11 and 18. On the 11th the Bishop of London will preach in the morning and the Lord Mayor and the Sheriffs will attend in State.

The Esrick Church Council has authorised Mr. John Bilson, F.R.I.B.A., architect, Hull, and Mr. W. Ainley, builder, York, to examine the ruins of St. Helen's Church, which was destroyed by fire recently, and to take steps to shore up the walls where needed and make the remains of the building safe. They are also to report on the conditions of the shell.

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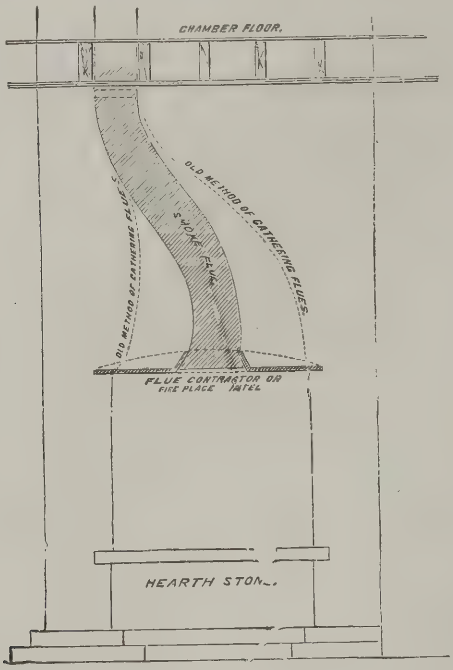
Gibbs' Fireplace Lintel.

The number of devices which have been put on the market for the cure of smoky chimneys must be legion. Few trade exhibitions are without two or three of the very latest—indeed they sometimes are so recent that only the inventor's model is shown. Apparently they vanish like the snows of yesteryear, never again to appear in public. Most of them assume the fact that the chimney flue and smoke stack are already constructed. But in the patent illustrated herewith Messrs. John Gibbs & Son, of 72–76 Duke Street, Liverpool, have gone to the very beginning of the trouble. They say in effect: "Use our lintel in the construction of a fireplace and there will be no smoky chimney to cure." The Gibbs' Fireplace Lintel is a perfectly simple device, for it consists of nothing more than a special iron plate which rests on the side piers at a height of 3 feet 3 inches above the hearthstone and replaces the customary wrought iron arch bar. This plate has its central piece missing to allow of the smoke entering the flue, and it so contracts the chimney throat that the old unscientific way of gathering the flue is removed. Down draught is thus checked, and there should be no subsequent need for desperate remedies. Messrs. Gibbs are not offering any untried invention, but an improvement which has been in wide use over a period of years and has won unstinted praise. The lintels are stocked in various sizes from 1 foot 6 inches to 6 feet wide, while larger sizes can be made if necessary.


CHAMBER FLOOR.
OLD METHOD OF GATHERING FLUES.
SMOKE FLUE
OLD METHOD OF GATHERING FLUE
FLUE CONTRACTOR OR FIRE PLACE LINTEL
HEARTH STON

Trade Notes.

Boyle's latest patent "Air-Pump" Ventilators have been applied to the New Church Hall, Wylam-on-Tyne, the Holyhead depot of Trinity House, and the Episcopal Church, Fraserburgh. They were supplied by Messrs. Robert Boyle and Son, Ventilating Engineers, Holborn Viaduct, E.C.

The goodwill of B. E. Nightingale, London, is now being carried on by Messrs. T. W. Heath, Ltd., Builders, and contractors, 29 to 33 Christchurch Street, Chelsea, S.W.3, and 124 Cromwell Road, Kensington, S.W.7. Telephone number, Kensington 7795.

Messrs. Cleworth, Wheal and Co., Ltd., Grange Engineering Works, Castleton, near Manchester, have appointed as their new representatives for the London area Messrs. Dektereff, Francke and Reppman, of 118 Queen Victoria Street, E.C.4.

The Limehouse Paperboard Mills, Ltd., Hough's Wharf, Limehouse, E.14, have placed on the market a new wallboard, which carries with it some noteworthy records, both as to strength and waterproofness. "London Wallboard" is offered as a cheap and efficient substitute for plaster. It is stocked in the following widths and lengths: 30 in., 36 in., and 48 in. by 6 ft. and 8 ft. The good points about a wallboard as a lining for ceilings and walls are obvious, and have been experienced by most people. This latest competitor in the market is prepared to face the keen competition as to price and quality.

The plans prepared by Mr. W. Harold Watson, Lic. R.I.B.A., have been accepted for a War Memorial Nurses' Home about to be erected at Wakefield.

Duramol Preservative.

There has been a revival of late in the discussion as to stone preservatives. Undoubtedly more failures than successes have rewarded the efforts of experimenters in the past. A preservative which has progressed well beyond the tentative stage is that manufactured by the Duramol Company, of 7 Scott Street, Garnethill, Glasgow.

Duramol was the outcome of lengthy experiments by Dr. W. Carrick Anderson, M.A., D.Sc., and was put on the market first about thirteen years ago. Since then it has been in steadily growing use for buildings of all kinds, chiefly because of the permanency of its effects in hardening and waterproofing stone, brick, and cement work, and its invisibility. It produces no change of colour in the stonework. It was used by the late Dr. MacGregor Chalmers, LL.D., on Iona Cathedral over ten years ago with conspicuous success, and also in the preservation of the tracery on the tomb of Bishop Kennedy in St. Andrews University Chapel. Last year the whole of the great extensions of Glasgow Municipal Buildings were treated with Duramol by the architects, Messrs. Watson & Salmond, and the extensions of the City of Glasgow Friendly Society's offices, the premises of Messrs. Pettigrew & Stephens, Ltd., warehousemen, as well as very many other blocks of business premises and city and country houses and churches, have been treated completely with it.

General.

At the last meeting of the Worthing Town Council, plans were approved for sixty-seven houses at Tarring and twenty-two in other parts of the borough.

The Liverpool Timber Trade Association has subscribed £250 to the scheme for providing lunettes at the Town Hall in connection with the Liverpool Roll of Honour.

At the Carlisle Licensing Sessions last week a cinema and billiard licence was granted to Mr. Joseph Dobson, Newcastle, in respect of premises to be erected in Botchergate, at an estimated cost of £25,000.

The Chief Engineer to the Hull Corporation has been instructed to prepare plans for the erection of 20 slipper and vapour baths at the rear of the Beverley Road Baths, Hull, and slipper baths and wash-houses for the St. Paul's Street site, Hull.

The Ministry of Health have agreed to the acceptance by the Newport Corporation of a contract with the Unit Construction Company, Limited, for the erection of another 50 houses on the Somerton Housing site, 22 at £325 per house and 28 at £328 per house.

Mr. H. G. Malcolm Laing, Lic.R.I.B.A., is preparing plans for the first crematorium which it is proposed to erect in Wales. The preliminary scheme has been approved by the Pontypridd Burial Board and it is hoped to invite tenders in about seven or eight weeks.

The proposed sale by the Manchester Corporation of Victoria Buildings, in the centre of that city, to a London syndicate for £400,000 has fallen through. The syndicate proposed to convert the building into an hotel, but it was reported that the deposit of 10 per cent. had not been paid.

The Health Committee of the Bradford Corporation recommend the City Council to accept the offer of Mr. W. Speechley to erect and convey to the Corporation on land at Wharncliffe Drive, Eccleshill, 24 houses similar to type "A" houses erected at Scholemoor, at the price of £335 per house, including cost of land and street making.

Mr. William Walker, F.R.I.B.A., St. Andrews, who was well known throughout East Fife, died suddenly at St. Andrews, on the 7th inst. Mr. Walker was an officer in the Highland Cyclists' Battalion during the war, and served in India. He was invalided home, and when demobilised quickly established an extensive architect's business in St. Andrews. Mr. Walker was 39 years of age.

In connection with the bicentenary of the death of Sir Christopher Wren, Mr. A. E. Richardson, Professor of Architecture, will deliver a public lecture, with lantern illustrations, on "The Public Buildings of Sir Christopher Wren" at University College, Gower Street, W.C., on Thursday, March 1, at 5.30 p.m. Tickets may be obtained on application, enclosing stamped addressed envelope, to the Secretary, University College, London (Gower Street, W.C.1.).

The Parks Committee of Glasgow Corporation agreed last week, by 13 votes to 12, that the proposal that the M'Lennan Arch be taken down and re-erected on a site to be mutually approved—the expense to be borne equally by the Trades House and others concerned and the Corporation—be accepted; and that the Corporation approve of the entrance to the Glasgow Green, at the foot of Charlotte Street, as a suitable site for the re-erection of the arch.

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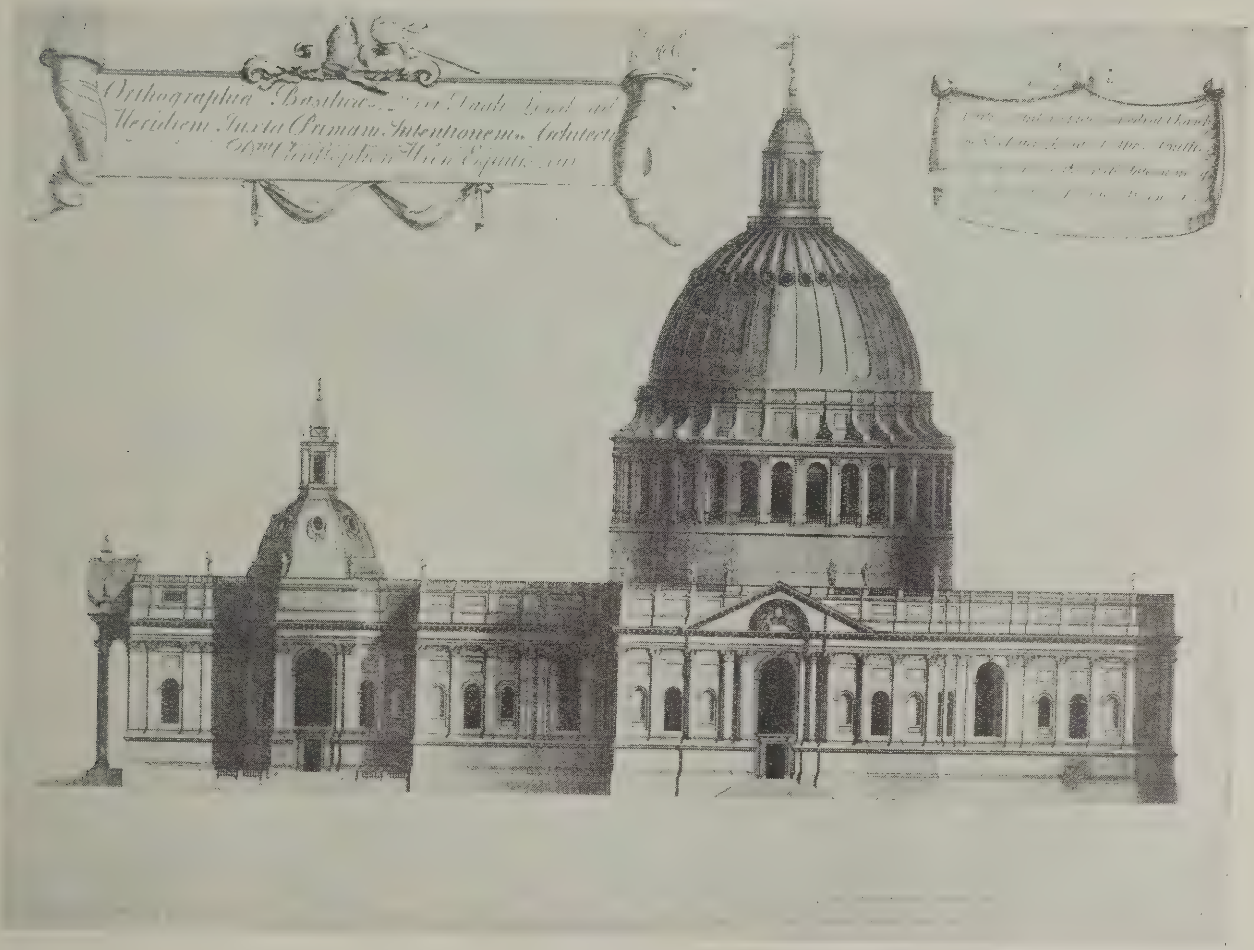
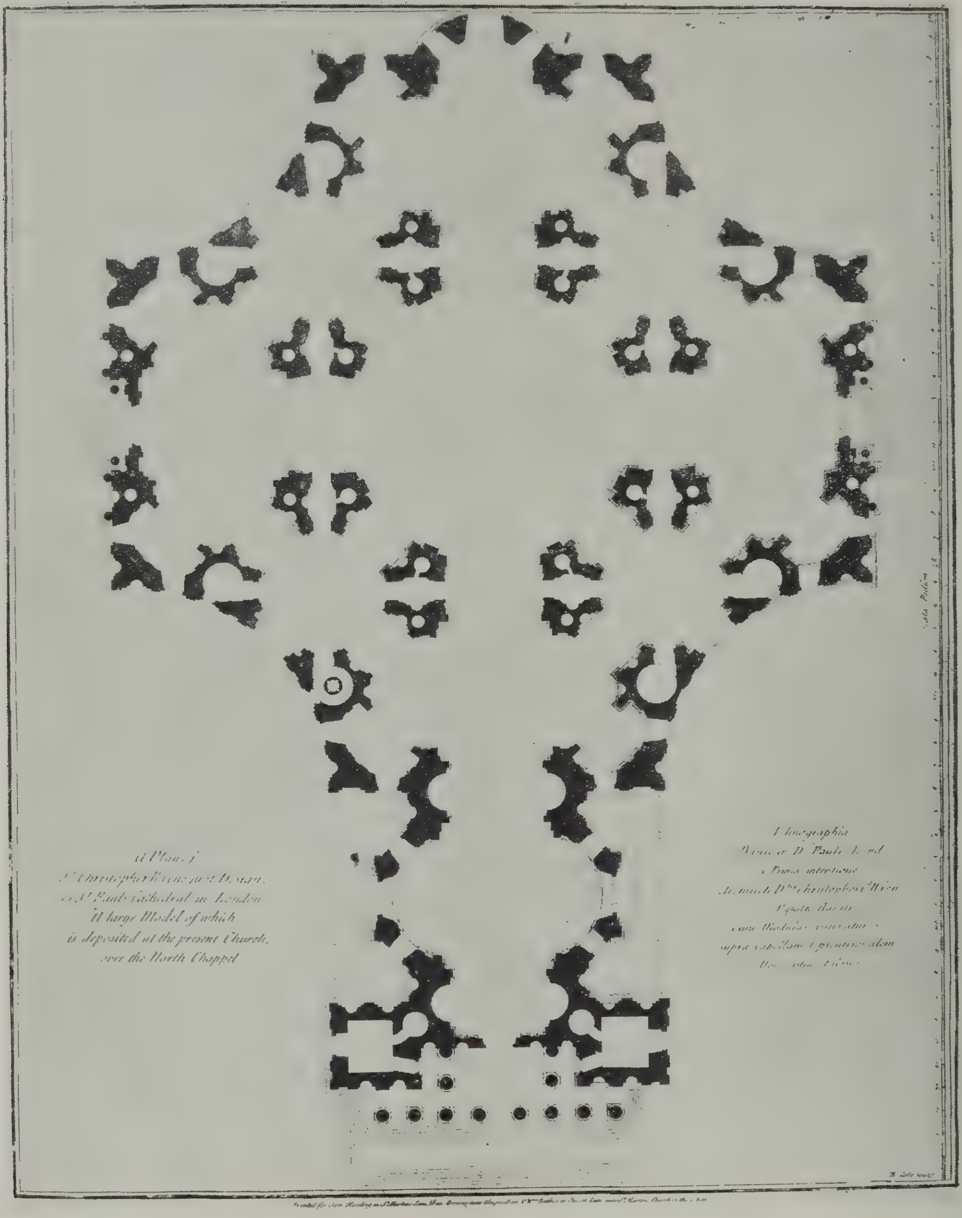
Wren's City Churches and St. Paul's.


Orthographia Basilicae . . . Pauli Lond. ad
Meridiem Iuxta Primam Intentionem Architecti
D.ni Christopher Wren Equitis

WREN'S REJECTED DESIGN. FROM AN OLD ENGRAVING.

It is easy to praise the work attributed to a great man, but it is a greater mark of appreciation to analyse it and to endeavour to form some general conception of the conditions under which it was produced. Much of the carving of a certain date is erroneously attributed to Grinling Gibbons, and in a similar manner may not many of the buildings attributed to Wren have been practically the work of lesser men working under his general direction? It is otherwise difficult to understand the remarkable differences in merit of the work attributed to Wren. In making this suggestion we maintain that we are in no way underestimating the genius of the greatest English architect, but rather the reverse, as a man's reputation depends not on the amount but the excellence of the work carried out by him.

Had Wren lived in a later age we should have possessed material which would have made much which is now obscure clear. We all know the legend of the causes which led up to the abandonment of his favourite design for St. Paul's and we all know the Warrant Design which was finally approved. But we do not know with any degree of certainty either how far the reasons quoted represent facts or how far the Warrant Design was intended as a serious production or how far it was Wren's device to gain time in which he could think out a solution which would enable him to surmount the difficulties by which he was surrounded. All we know is that it is difficult to compare St. Paul's as it now exists and the design which he favoured, and of which he has most fortunately left us a model, without being convinced that his first conception was finer and more satisfactory than the building erected. This conviction is confirmed by a knowledge that the preliminary designs and "draughts" of those days by no means represented what was finally built, as do the drawings of to-day, and with that knowledge we may be sure that, had Wren had his way, faults which have been pointed out in his model would have been eliminated. The very curious and disturbing dome of the ante church would probably have been improved out of recognition, while the great dome would have received the detailed consideration of one who showed an unsurpassed mastery of mass and outline. Be this as it may, the design is not only one of outstanding beauty but one which shows a logical completeness


A Plan of
Sr Christopher Wren's first Design
of St Pauls Cathedral in London
A large Model of which
is deposited at the present Church,
over the North Chappel
Ichnographia

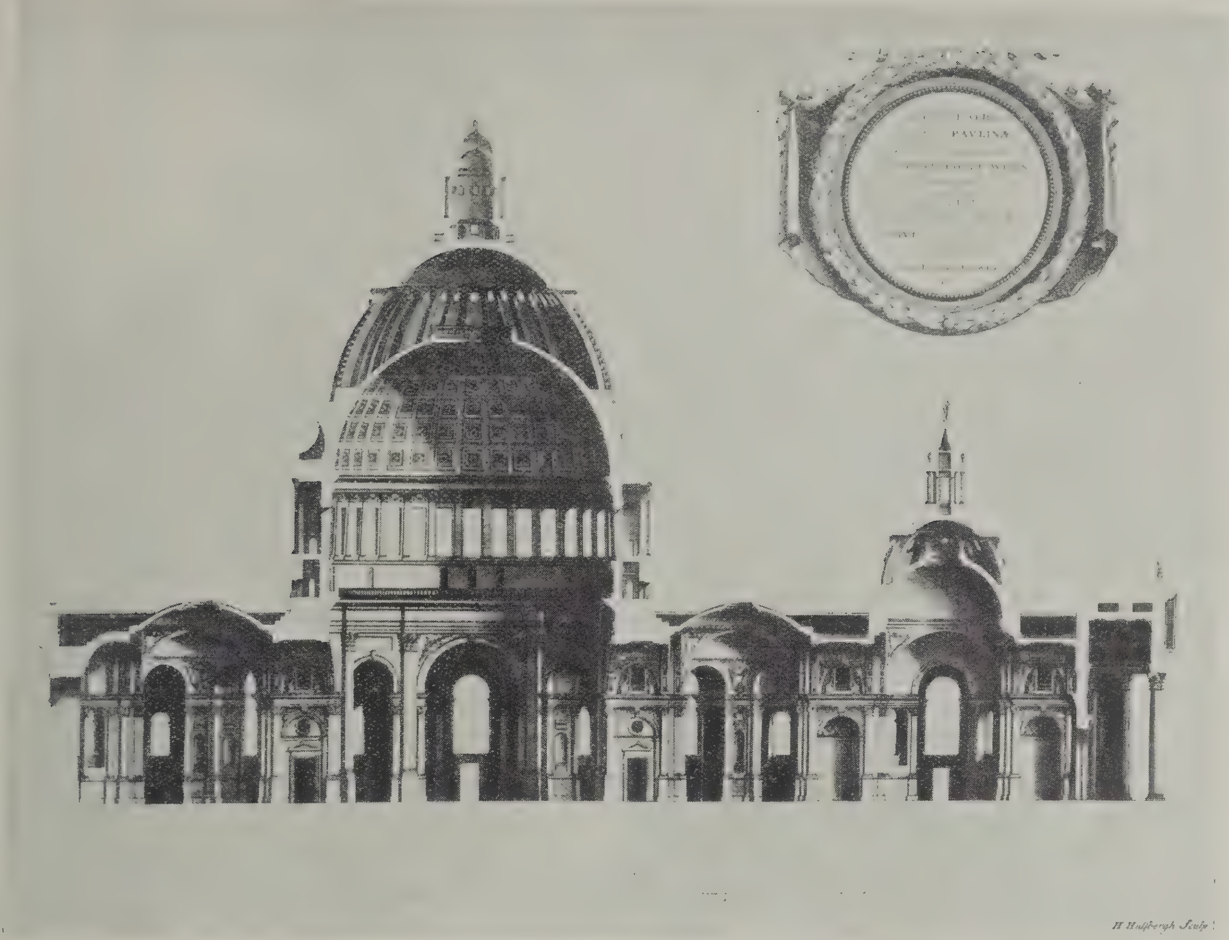
WREN'S REJECTED DESIGN. FROM AN OLD ENGRAVING.

and sequence absent in the great building erected. No one can stand above St. Paul's without regretting that it was necessary to conceal a constructional interior with an outer skin which has little relation to that interior and, in spite of the magnificence of the results achieved, we must always regret the means employed to achieve those results. In saying so it would be unfair to Wren's memory to fail to add that he may have been given an insoluble problem by the authorities and may have regretted the means employed as emphatically as does any modern critic. But his mastery of detail has, perhaps, been nowhere more conspicuous than in his treatment of the upper external storey, which was made necessary by the exigencies of the design.

Wren has fortunately left a record of his conception of what should be aimed at in the design of the City churches which enables us to analyse them with greater precision than we can his great cathedral. They were internally to be convenient preaching spaces well arranged for services having little or no ritual. They were almost all of them hemmed in by other buildings so that only the steeples or a small part of the exterior could be seen, and they had in most cases to occupy the exact sites of the buildings destroyed by the Great Fire. Further, the time in which they were built was one of great financial depression. In the reign of the second Charles our rulers had little regard for the wants of the nation and little sympathy with the expression of those wants, in spite of the interest displayed by Charles II in science and art.

Wren was a careful and efficient man of business, a scientist and mathematician, and into his hands was committed the labours of designing and supervising the erection of over fifty churches at a time when he was occupied by the great problem of St. Paul's. Sir Lawrence Weaver tells us that he was paid 5 per cent. on the amount expended on the churches, in addition to his salary as surveyor of St. Paul's, but we may well ask how was it possible for any one man to give close personal attention to such an immense mass of work without the appliances of later times with which we are familiar.

Our theory—in support of which we shall quote arguments from the buildings themselves—is that he could not and did not, and that an analysis of these buildings would enable us to divide them into three main classes. First, those churches which by reason of their size and importance were especially marked out

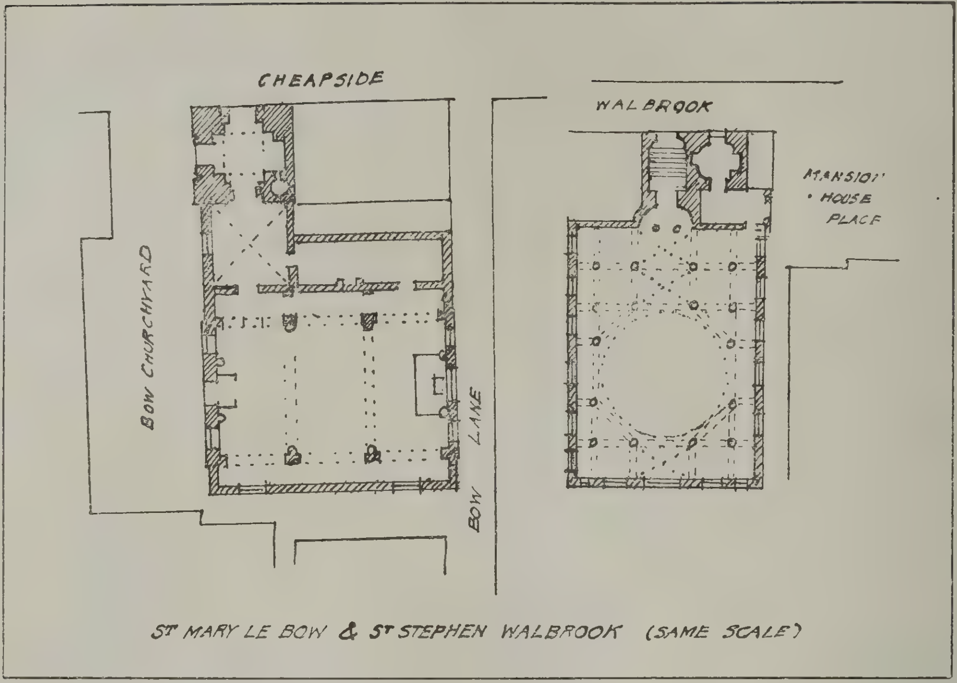


WREN'S REJECTED DESIGN. FROM AN OLD ENGRAVING.

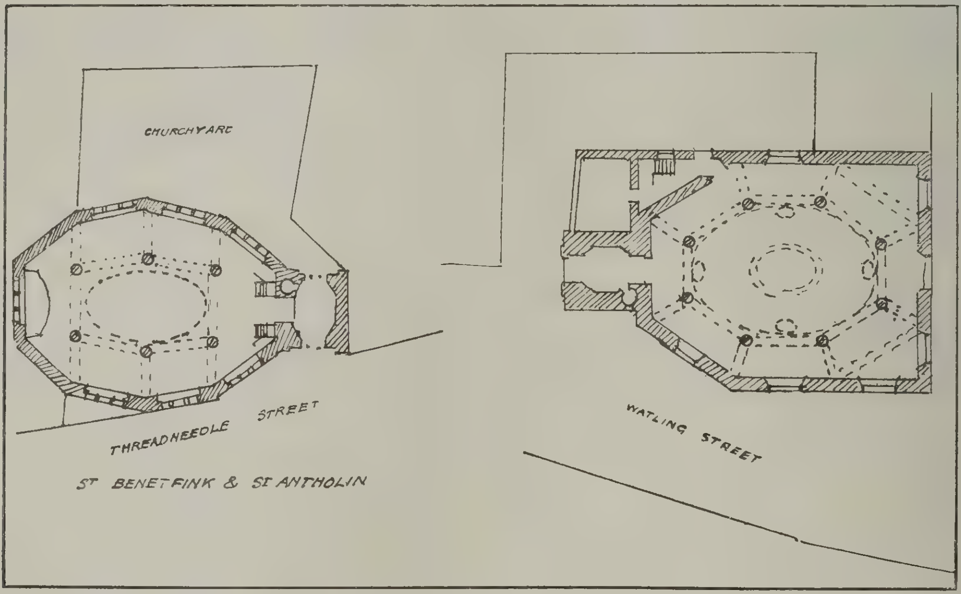
for his personal attention; secondly, churches which by reason of some special configuration of site aroused his interest as involving geometrical and structural problems; and thirdly, a number of churches of lesser interest which were probably largely left to others and which do not show clear traces of being the work of a designer of Wren's eminence. We must bear in mind that in leaving much of the detailed work to others Wren would be following the custom of an age removed by a lesser gap from that of the master builder than that of the modern architect and that the age of great craftsmen had not then passed away. It follows from this that buildings in which we can trace little evidence of the skill of a great architect may yet be enriched by fine panelling and plaster work. The steeples generally bear clear evidence of having engaged Wren's close attention; they were, as he had said, the most important feature connected with buildings surrounded by others. Exceptions to this may be instanced as the towers of St. Clement's, Eastcheap, and All Hallows, Lombard Street, as well as some others of a like character which are mediocre works of design displaying none of the skill shown in other cases. Such steeples as those of St. Mary-le-Bow, St. Bride's, St. Vedast, and St. Martin's, Ludgate Hill, may be quoted as among Wren's finest works. Some, like St. Dunstan's in the East, probably greatly interested him from the constructional problems involved, while St. Magnus, London Bridge, St. Edmund the King and Martyr, in Lombard Street, and St. Nicholas Cole Abbey, are interesting and graceful examples of his power of design in curved forms. In St. Margaret Pattens and the demolished church of St. Augustine, Watling Street, we have his variants of the lead-covered Gothic spire carried out with Renaissance detail, and in the two churches of St. Michael, Cornhill, and St. Mary Aldermary we have his rendering of the familiar Perpendicular forms.

The merit of the churches is by no means necessarily dependent on the size and importance. Christ Church, Newgate, one of Wren's largest churches, is almost commonplace. St. Mary-le-Bow, the site of which is almost exactly of the same area as St. Stephen, Walbrook, is one of the least interesting of Wren's churches and consists of a short and uninteresting nave and two aisles of no outstanding merit, while St. Stephen's, Walbrook, is deservedly recognised as being Wren's finest interior. St. Bride's, Fleet Street, is a fine aisled church, but is greatly surpassed in beauty by St. Clement Danes, the treatment of the east end of which is peculiarly beautiful. But Wren's greatest successes are usually those in which he adopted a domical treatment, or one of which a central dome formed a prominent feature. St. Stephen, Walbrook, St. Mildred, Bread Street, and St. Mary Abchurch may be mentioned in this category, while in St. Swithin, Cannon Street, we have a variant in which the central feature is formed by an octagon. Then we have another interesting group of interiors, as examples of which may be mentioned St. Martin, Ludgate Hill, and St. Anne and St. Agnes, in which spaced columns form the *motif*. All of these types seem to us to have appealed to Wren more than the treatment of a church in the older fashion with a nave and aisles, a form which the configuration of the sites did not in most cases suggest. Possibly the desire to avoid repetition led to such a design as that of St. Mary-le-Bow.

Two of the churches now unfortunately demolished



ST MARY LE BOW & ST STEPHEN WALBROOK (SAME SCALE)

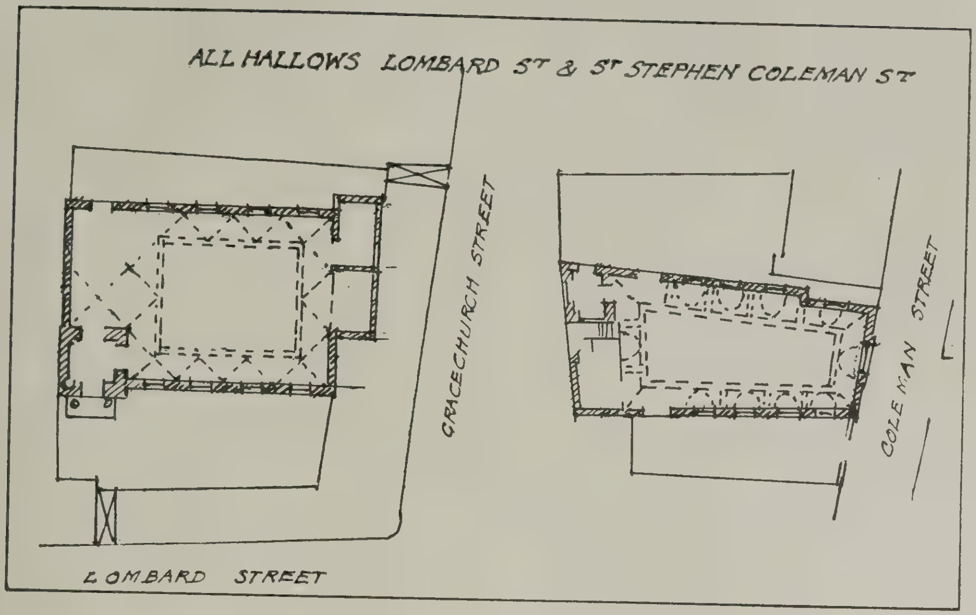


ST BENETFINK & ST ANTHOLIN

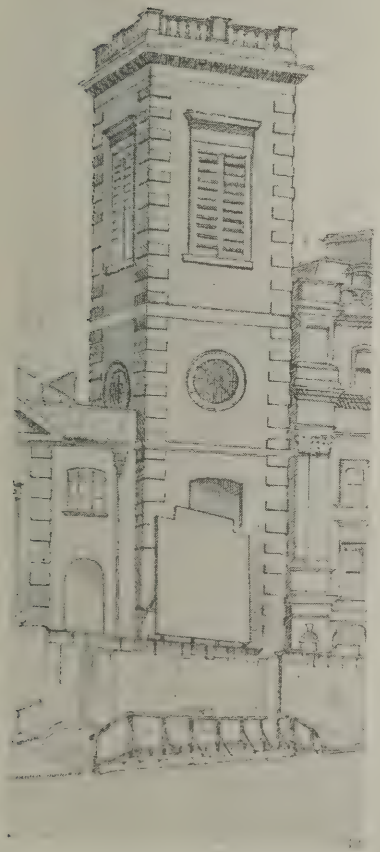
are among those we must most regret. We refer to St. Benetfink and St. Antholin, Watling Street. Both of these stood fronting important streets, the alignment of which necessitated curious forms, and both of them show clear indications of masterly planning and design. St. Antholin in particular was a peculiarly beautiful and interesting building, while St. Benetfink was, of all Wren's work, the most quaint and picturesque. Both suggest that, like very many good architects of to-day, the difficulties of a peculiar position stimulated Wren's powers and interest in design and that, busy as he was on important works, he gave them his special attention.

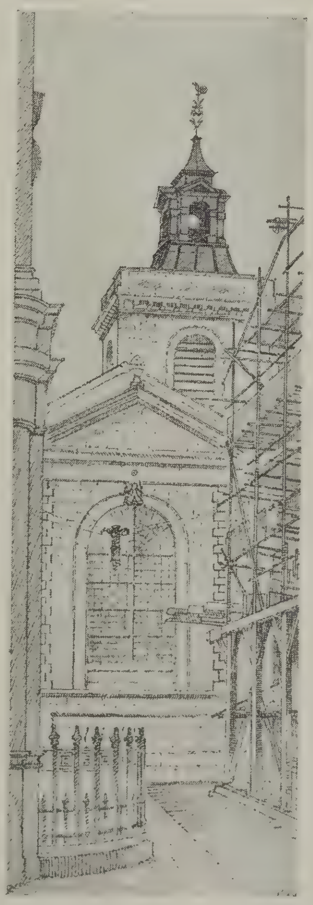
But among the churches is a small group, amongst which may be mentioned All Hallows, Lombard Street, St. Clement, Eastcheap, St. Edmund King and Martyr, and St. Stephen, Coleman Street. As the plan of two of these churches shows, the design is in each case that of a flat ceiling with a deep cove running round it into which the window heads cut awkwardly. Some of these churches suggest, in their paucity of interest and commonplace design, that they are most unlikely to be the closely considered work of a great designer, but were far more probably carried out from general indications of the architect's purpose by others. The fact that Wren was nominally architect for the whole of the churches built and exercised general oversight and responsibility does not in our view militate against this theory, and in admitting its probability we add to rather than detract from the reputation of the greatest name in the architectural history of England. This theory, if admitted, has an important bearing on the whole question of the maintenance of some of the churches, for if it be admitted, as we think a study of the buildings makes evident, that the small number of inferior buildings cannot rightly be attributed to Wren, their demolition need not give cause for regret to even those who would, out of reverence for his memory, preserve the least of his works in perpetuity.

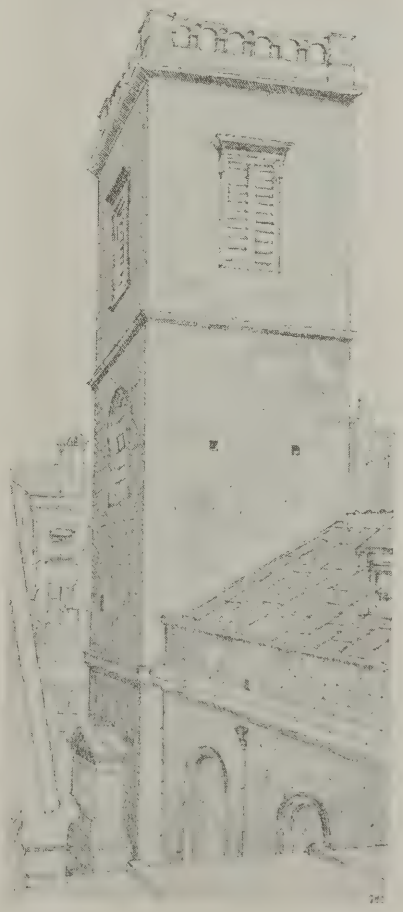
We have alluded very generally to an interesting field of investigation apposite to the present anniversary and, we may add, highly controversial in its character.



It is absolutely necessary to arrive at some generally accepted principle we can apply when dealing with the buildings which have come down to us from past ages. Neither the purely antiquarian nor purely utilitarian theories are sound, and it is useless to expect those who rigidly adhere to either theory to deliver sound and reliable judgments. The question of the merit of the buildings themselves should surely be the chief criterion after due and proper allowance has been made for historical association and the urgency of each particular case considered.


ST. CLEMENT'S, EASTCHEAP.


ST. STEPHEN, COLEMAN STREET.


ALL HALLOWS, LOMBARD STREET.

Our Illustrations.

WREN'S TOWERS AND STEEPLES. From Drawings by MR. GEORGE COOK.
WREN'S MODELS FOR ST. PAUL'S CATHEDRAL (Rejected Design).

We give this week an interesting series of drawings of Wren's steeples, which are the work of Mr. George Cook, who has in every case drawn them on the spot. We are glad to give them, as they are very accurate and careful renderings of the steeples as seen from the positions selected, and therefore have a value which may be greater than that of the more ambitious drawings which have sometimes been "cooked" to obtain the fullest effect.

Notes and Comments.

Town Planning Failures.

Professor Adshead, in an address to the Manchester Society of Architects, criticised the manner in which the Housing and Town Planning Act is administered and the disposition of those who administer its legal provisions to consider the first and preliminary scheme as final, a disposition which Professor Adshead described as resulting in a "hard line school" of town planning. The Ministry, it seems, have informed the Town Planning Institute at least on one occasion that the only thing of real importance was the preliminary statement, which must not be departed from because of the legal difficulties which might arise. All this emphasises, as the speaker said, the importance of a district preparing for itself a general development plan without too close reference to legal boundaries and other difficulties in order that the preliminary statement sent to the Ministry might represent the results of more careful and detailed consideration. Such a survey should be drawn up by a panel of professional men on which architects as well as surveyors and engineers should be represented, and such a course has been adopted by Brighton, Plymouth and Norwich. The suggestion made is very much to the point, for hasty and insufficiently considered plans, if adopted, would in part negative the results aimed at in the Act, and would make possible the evils which bureaucratic administration brings in its train.

Housing.

The housing policy of the new Government hardly commends itself to us, as it seems to be a half-way house which, while reducing the commitments which would have followed the carrying out of Dr. Addison's policy, does not eliminate the root evil of that policy and does not afford sufficient inducement for private enterprise. It seems to us that while one party in the State admits the error of the ways we have been pursuing since 1910, it will not take its courage in its hands and end an evil which it admits. It is a truism that retreat from any untenable position is a movement which is fraught with difficulty, but it may be better to make it at once than to attempt to hold the position with insufficient forces. We feel that the modified subsidy advocated in Manchester, which is to be adopted by the Government, is one which is likely to deter private enterprise, while at the end of a term of years it will have become a heavy financial commitment. It would be far better to relieve housing, for at any rate a term of years, from rates, to lend the speculator money on the cheapest reasonable terms and to let him provide the best accommodation for which the average man was willing to pay. Such accommodation might not seem to us to be all that we could wish, but at any rate it would be all we could have on a rock bottom basis governed by the times in which we are living.

Rent Restriction.

The comments in the daily Press prove to us that we have travelled a long way from the time when honesty was held to be the best policy. We are sorry to see that the Rent Restriction Acts are not to be allowed to lapse at once, and that the Government turns its policy for reasons of expediency. The middle classes have not been housed by Government, but by private enterprise, and those who have built or bought houses have every right to receive as much rent for them as they can get in the open market. If the Government wishes to help tenants and occupiers, there is only one fair way to do it—that is by giving a grant in aid which will enable tenants to meet the demands made upon them. If the money of the taxpayers is to be spent on housing at all, it should be expended in this way, and not in giving subsidies for houses to be erected. But it seems that in this very simple matter we have lost all regard for the maxim that we should render unto Cæsar the things that are Cæsar's. The rent which a man can obtain for his property is his own, and not a sum to be divided into portions at the will of the Government of the day for any consideration whatsoever, and unless this is recognised and acted upon, we have no right to claim that we are a justice-loving people.

Electric Light.

Mr. A. E. Bawtree, an electro chemist and physicist, lecturing before the Royal Photographic Society, claimed that mankind is being blinded by modern electric light, and the remedy was to use less intense forms of illumination. He says that 50 per cent. of middle-aged men and women wear glasses, as well as a large number of children. Naturally such drastic criticism has been met by the reasonable answer that the wearing of glasses is in part accounted for by the fact that defective eyesight is now remedied, whereas in former days it remained uncorrected. It would be more correct to say that civilisation and modern methods have made it possible to use eyesight to an extent which was unknown formerly, and most people only rest their eyes at night. If we reverted to the life led by our ancestors in Saxon times, few of us would use our eyes for close and intricate work at all, and most of us would be living largely out of doors. Under such conditions, the eyesight of the race would unquestionably be improved. But the worst thing of all is probably to attempt to see clearly what owing to insufficient lighting cannot readily and easily be discerned, which at once causes eyestrain. Also we have to remember that the ratio of illumination in daylight is far greater than that of any ordinary artificial light, and the best artificial light of all would be one which gave the most powerful diffused light possible.

"Bulgarian Atrocities."

From a contemporary we give the following very interesting announcement:—

> In virtue of the provisions of the Compulsory Labour Act in Bulgaria, all artists, sculptors, and the like have been invited to send in an artistic work of some kind to the Compulsory Labour Department with a view to the institution of an art gallery, according to information received by the International Labour Office of the League of Nations. The Compulsory Labour Act, which came into force in June, 1920, provides that all Bulgarian citizens of both sexes, viz., men who have attained the age of 20 years and girls who have attained the age of 16 years, shall be liable to compulsory labour service, lasting a total of 12 months in the case of men and 6 months for girls. On the occasion of the inauguration of this art gallery the Minister of Public Works, Mr. Tsanka Bakaloff, said that, by adopting the same plan for several years in succession, the State would acquire a valuable collection of pictures, statues, and other works of art. Reproductions of the best works sent in, for the selection of which a committee will be appointed, will be sent to all State institutions and schools, and also to Bulgarian legations abroad, with a view to making known in foreign countries Bulgarian art in general and the work of individual artists. More than a hundred pictures are exhibited in the art gallery. Writers and journalists also come within the scope of the Act, and will be required to contribute to the publications of the Compulsory Labour Department.

It will be interesting, if painful, to see the works of art and literature collected under the terms of this remarkable law. It would be appropriate if the building containing these treasures of art was designed as a state prison erected by convict labour and decorated with the emblems of historical tortures.

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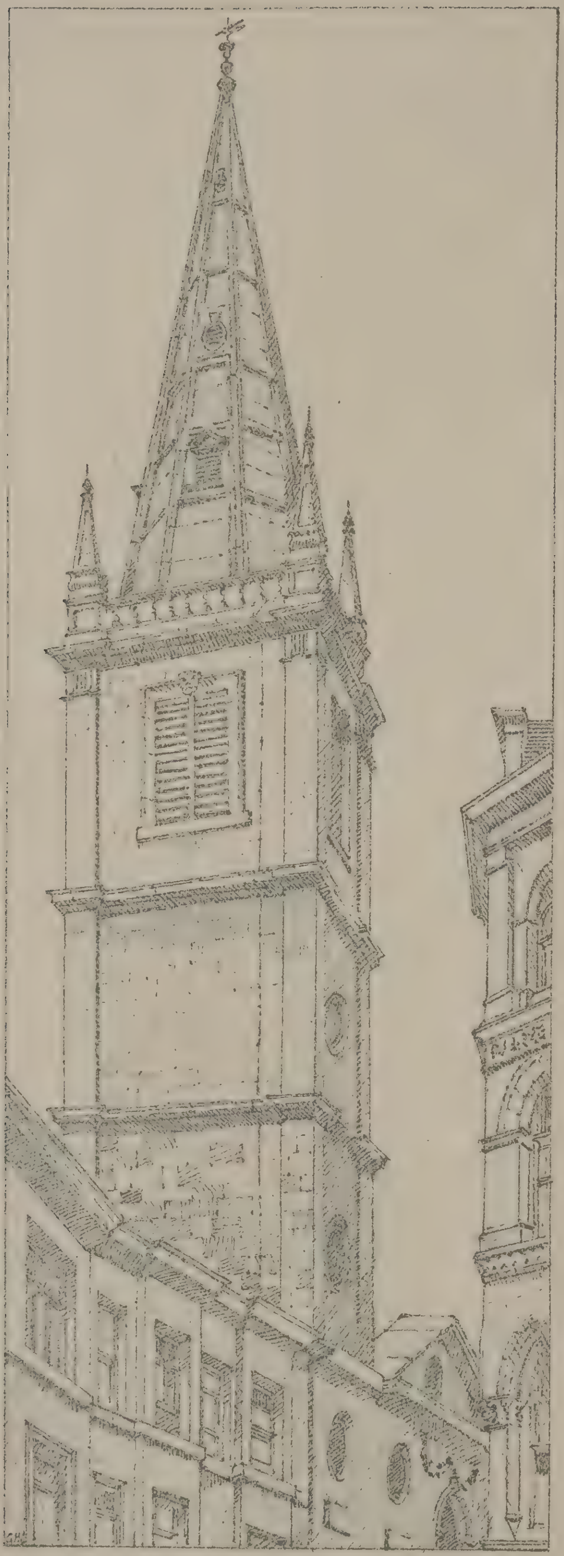
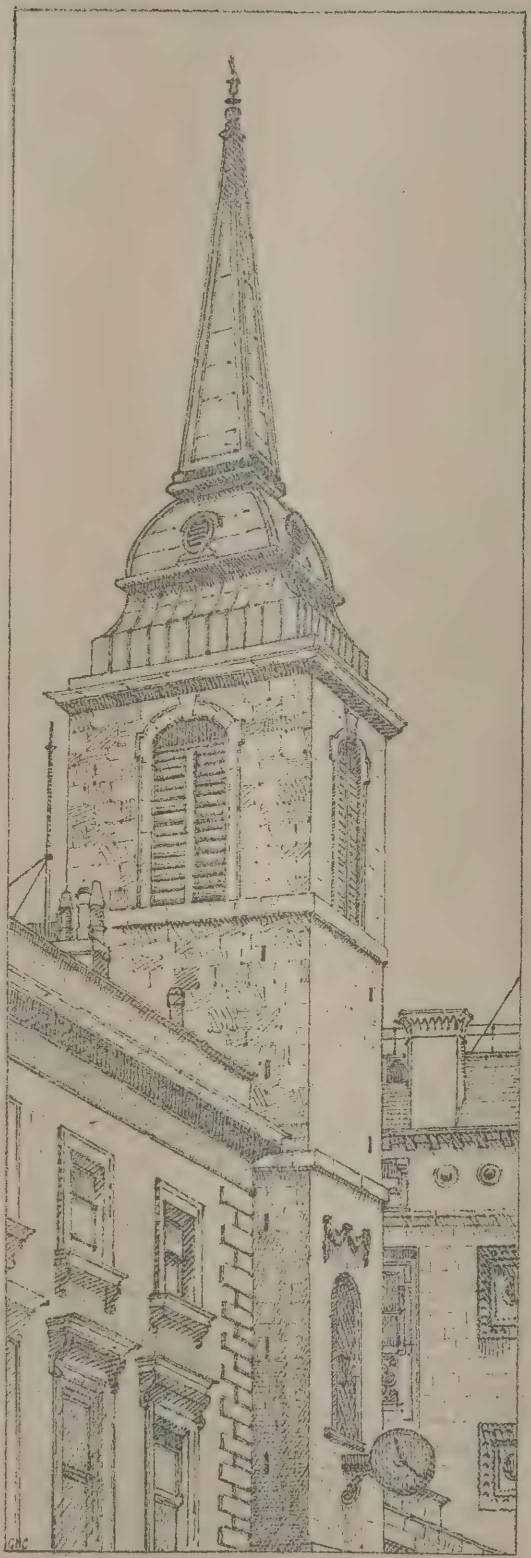
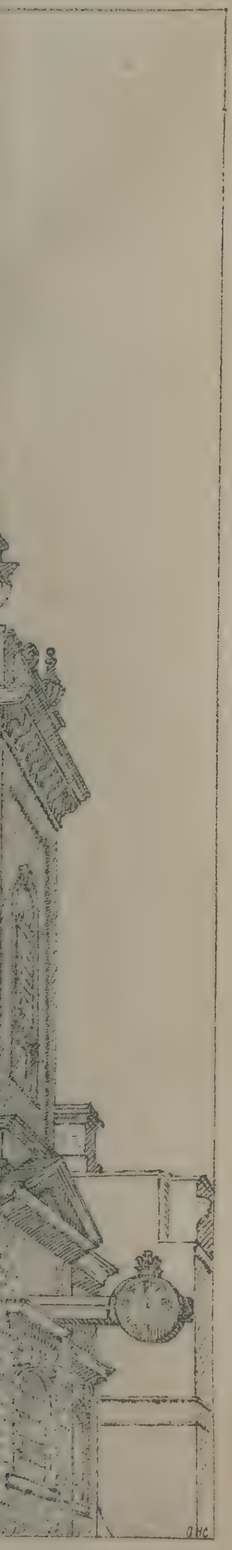


S. Margaret Pattens
Rood Lane
20.11.20

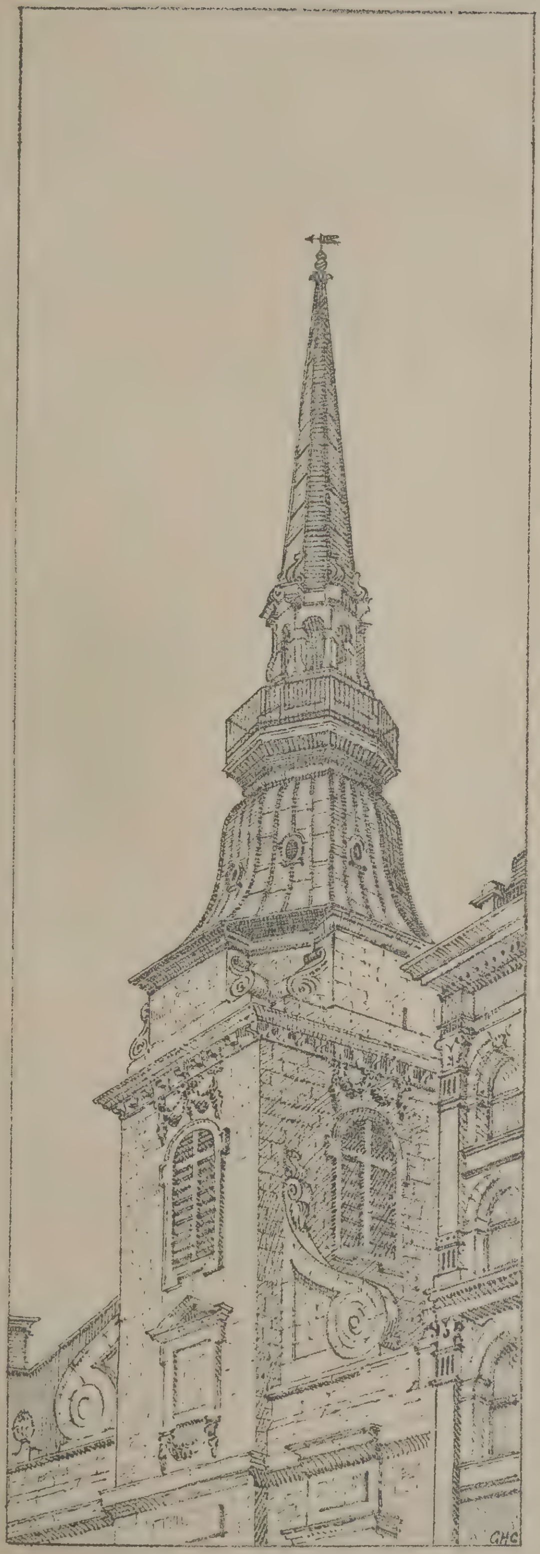


S. Margarets Lothbury
28.11.20

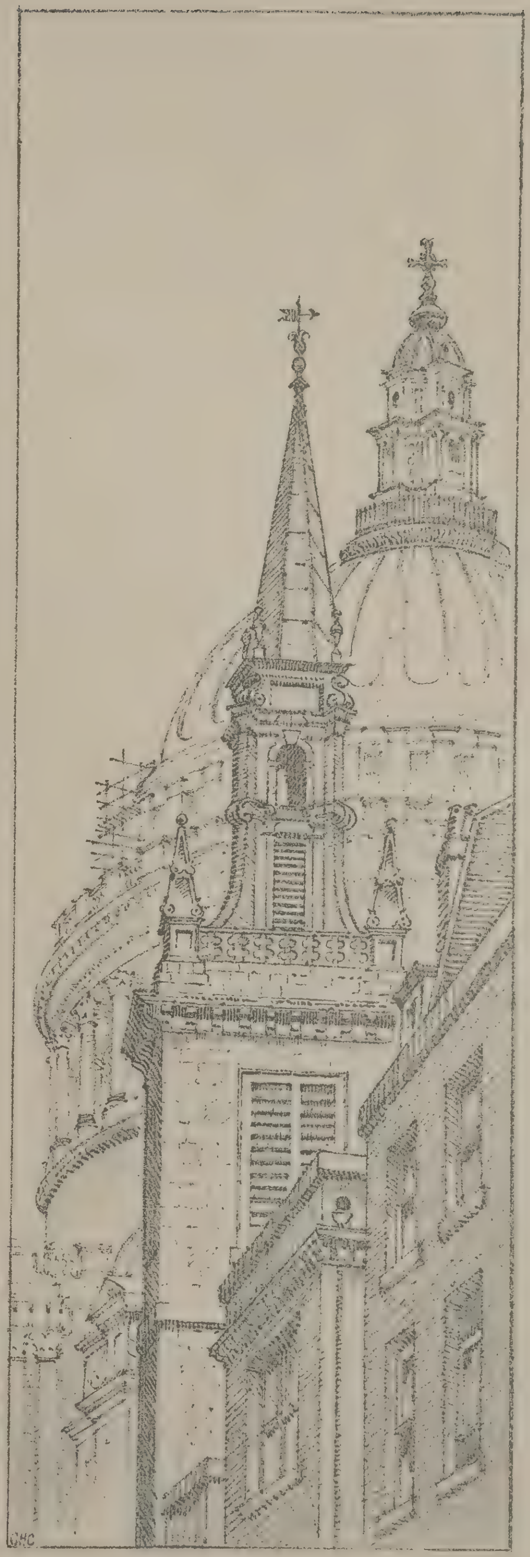
WREN'S TOWERS AND



S. Edmund
King + Martyr
Lombard St
1.8.'20.



S. Martin's
Ludgate Hill
3.8.20



S. Augustine
Watling St
29.9.20

Drawn by George H. Cook.

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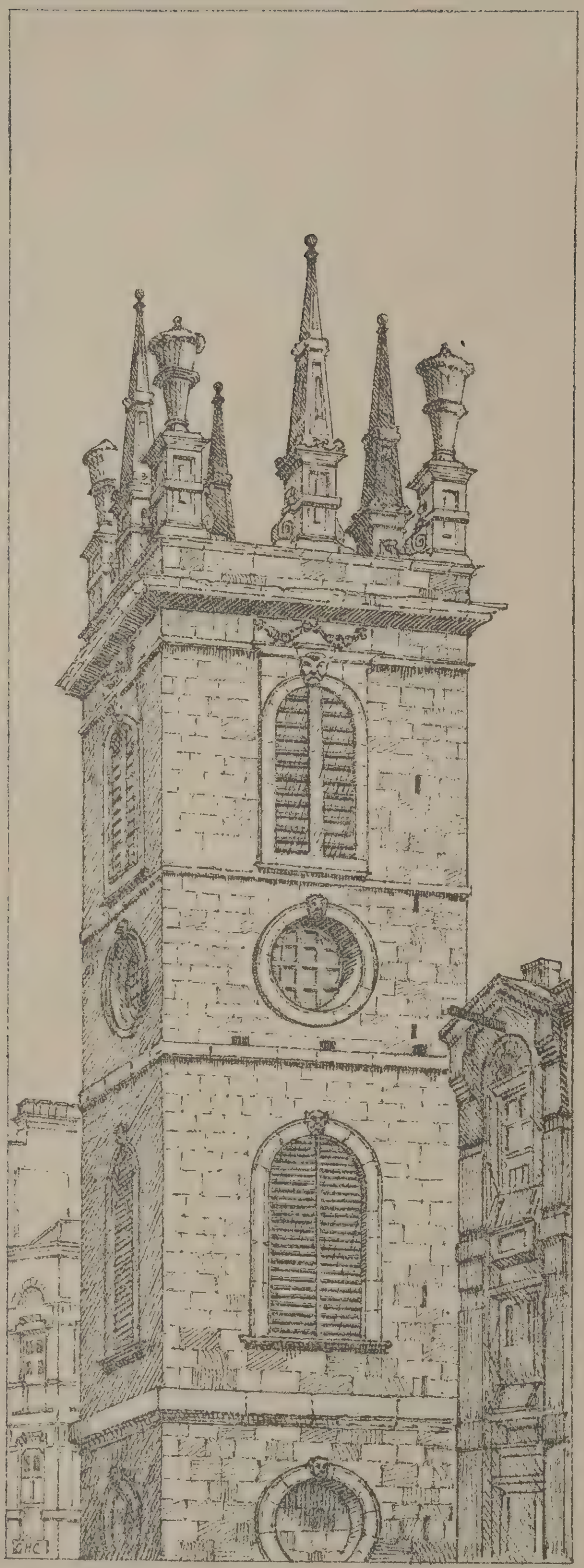
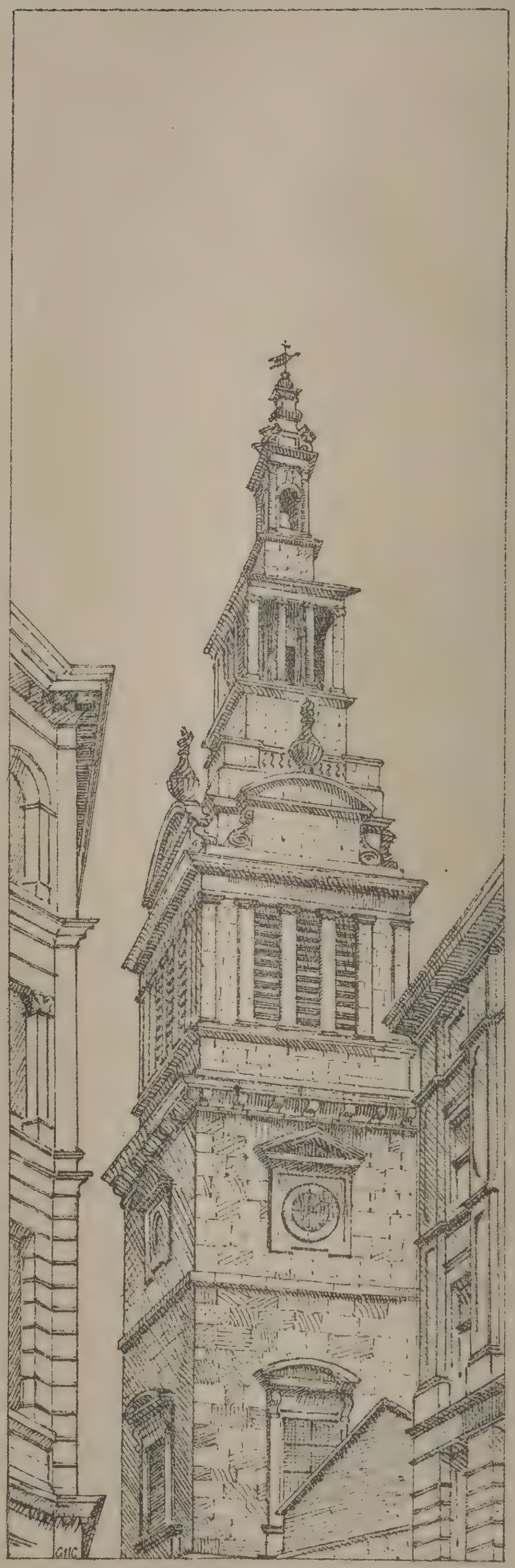


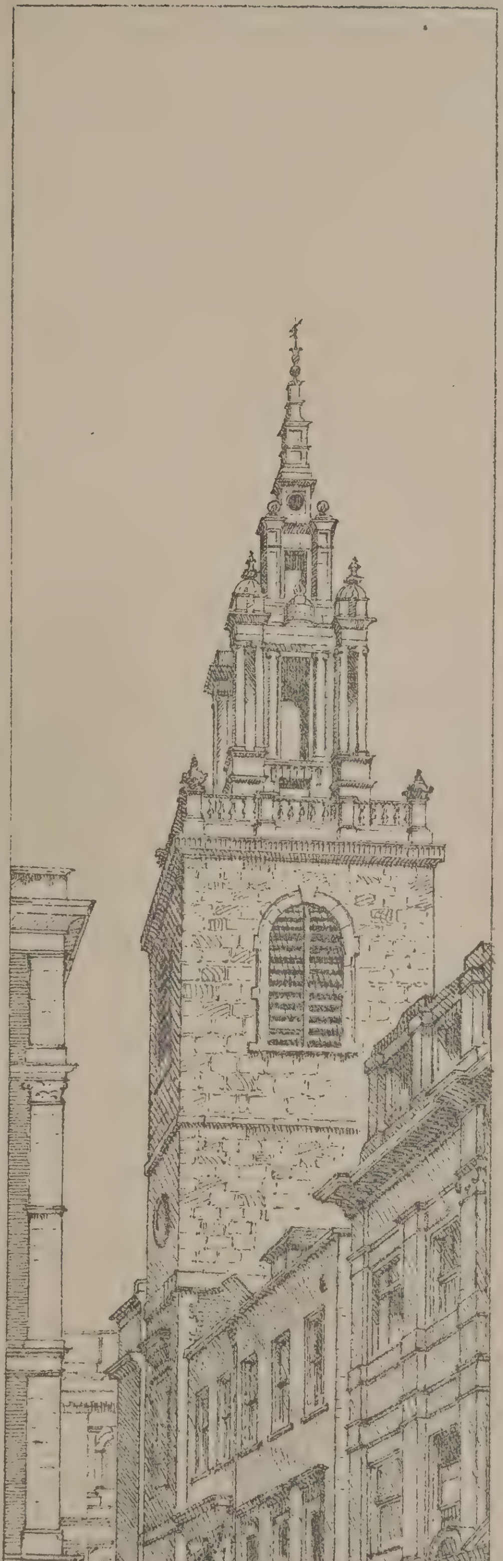
S. Mary Somerset
25.9.20



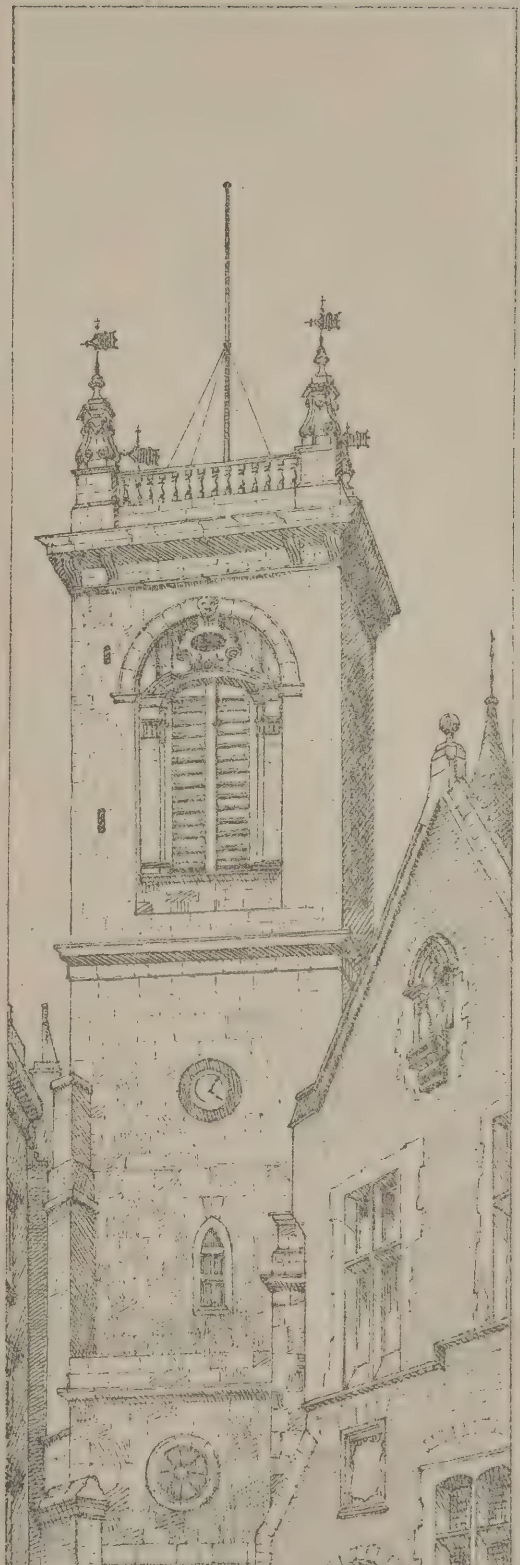
Christ Church
Newgate.

WREN'S TOWERS A

Paternoster Royal
College Hill 13. 11. '20



S. Stephen's
Walbrook.



S. Andrew's Holborn
13. 11. '20

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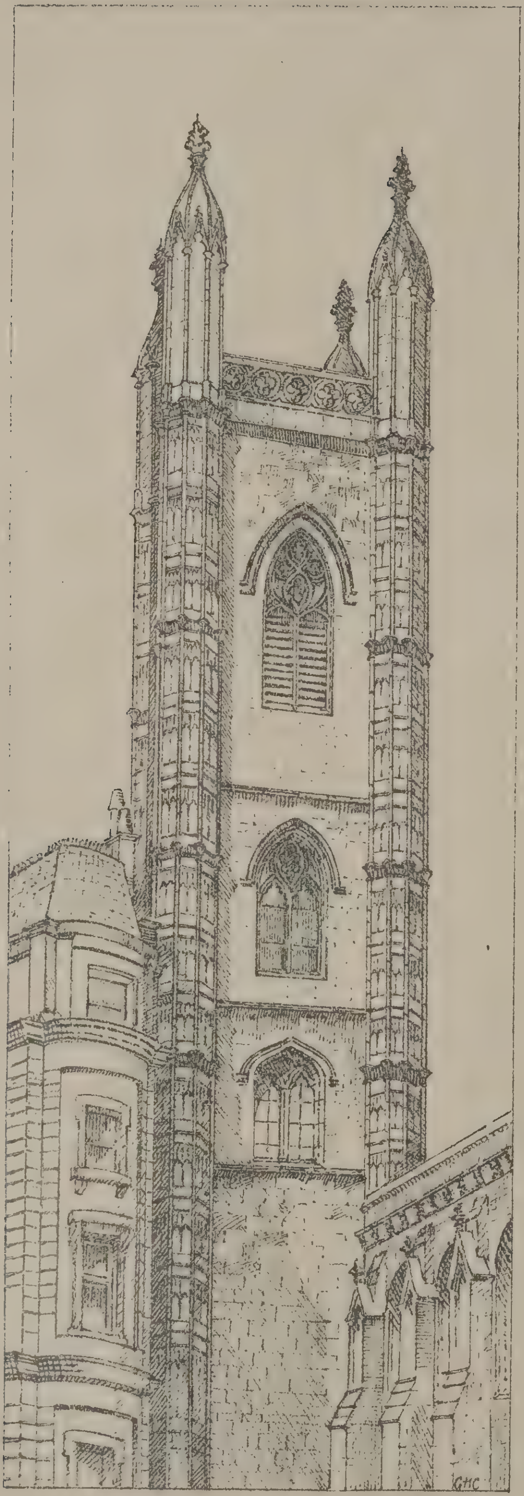
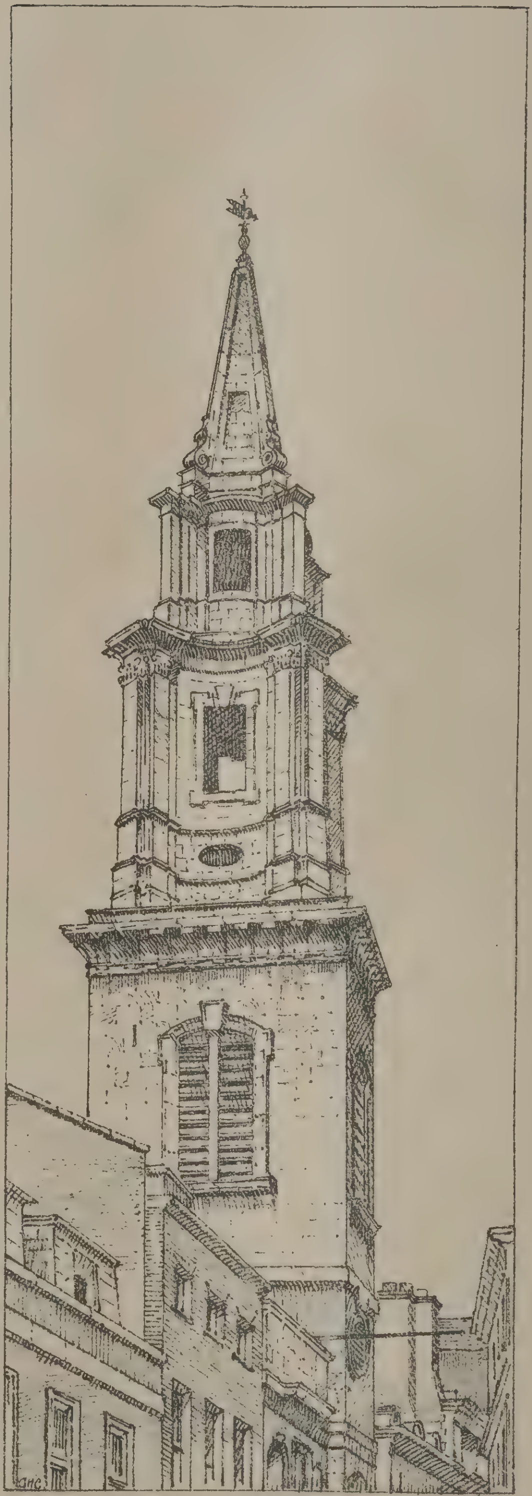
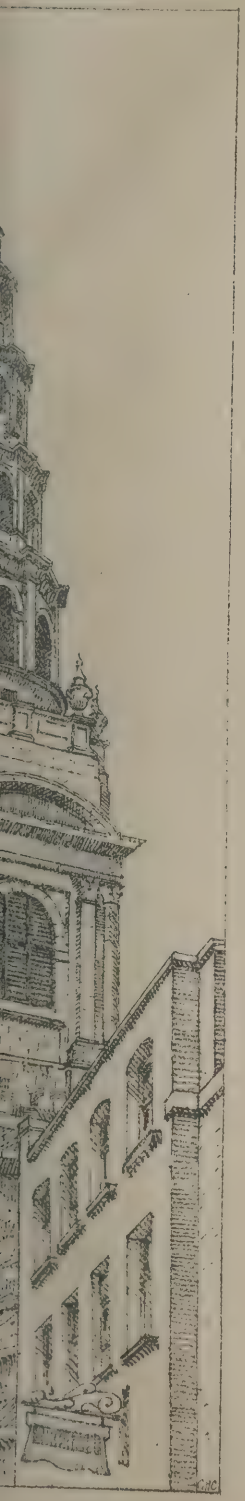


S. Mary Aldermary
12. 9. 20

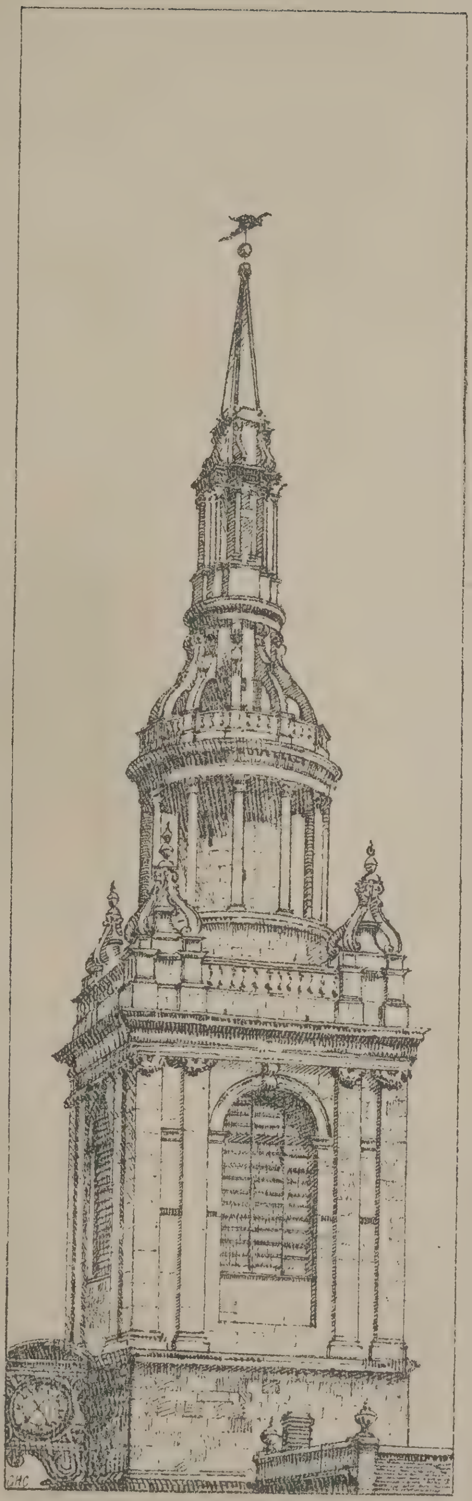


S Vedast's Foster Lane.
2. 1. '21

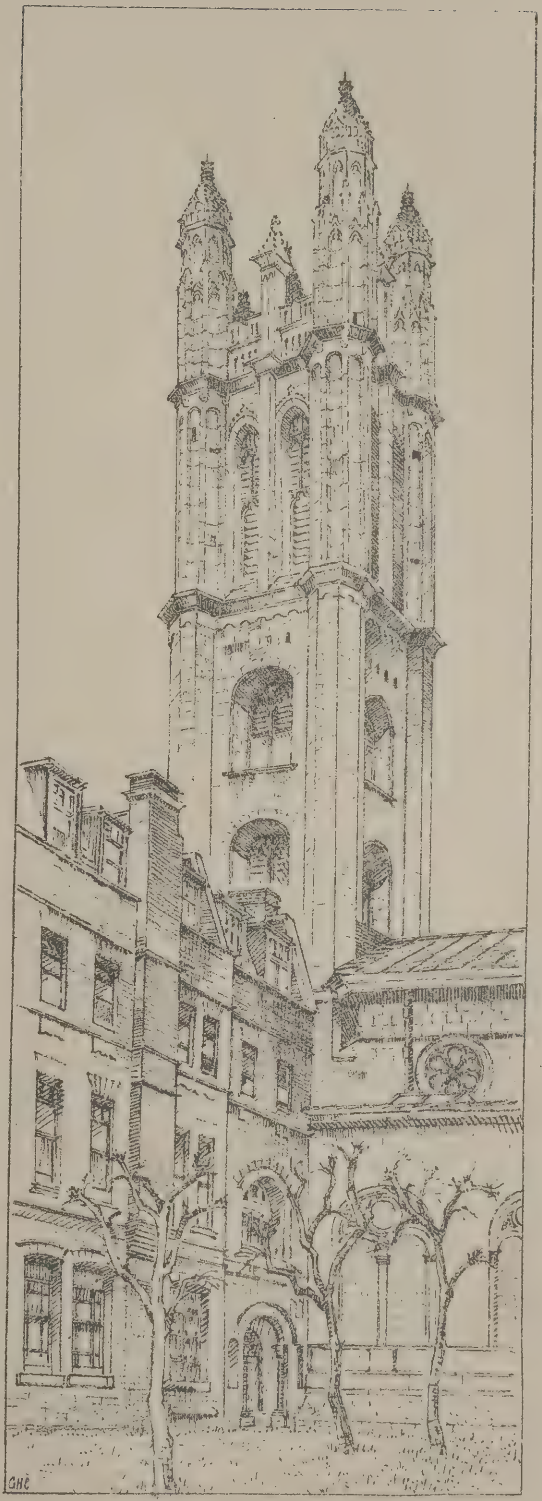
WREN'S TOWERS AN



S. Brides Fleet St.



S. Mary le Bow
Cheapside.



S. Michaels
Cornhill
7. 11. '20

Drawn by GEORGE H. COOK.

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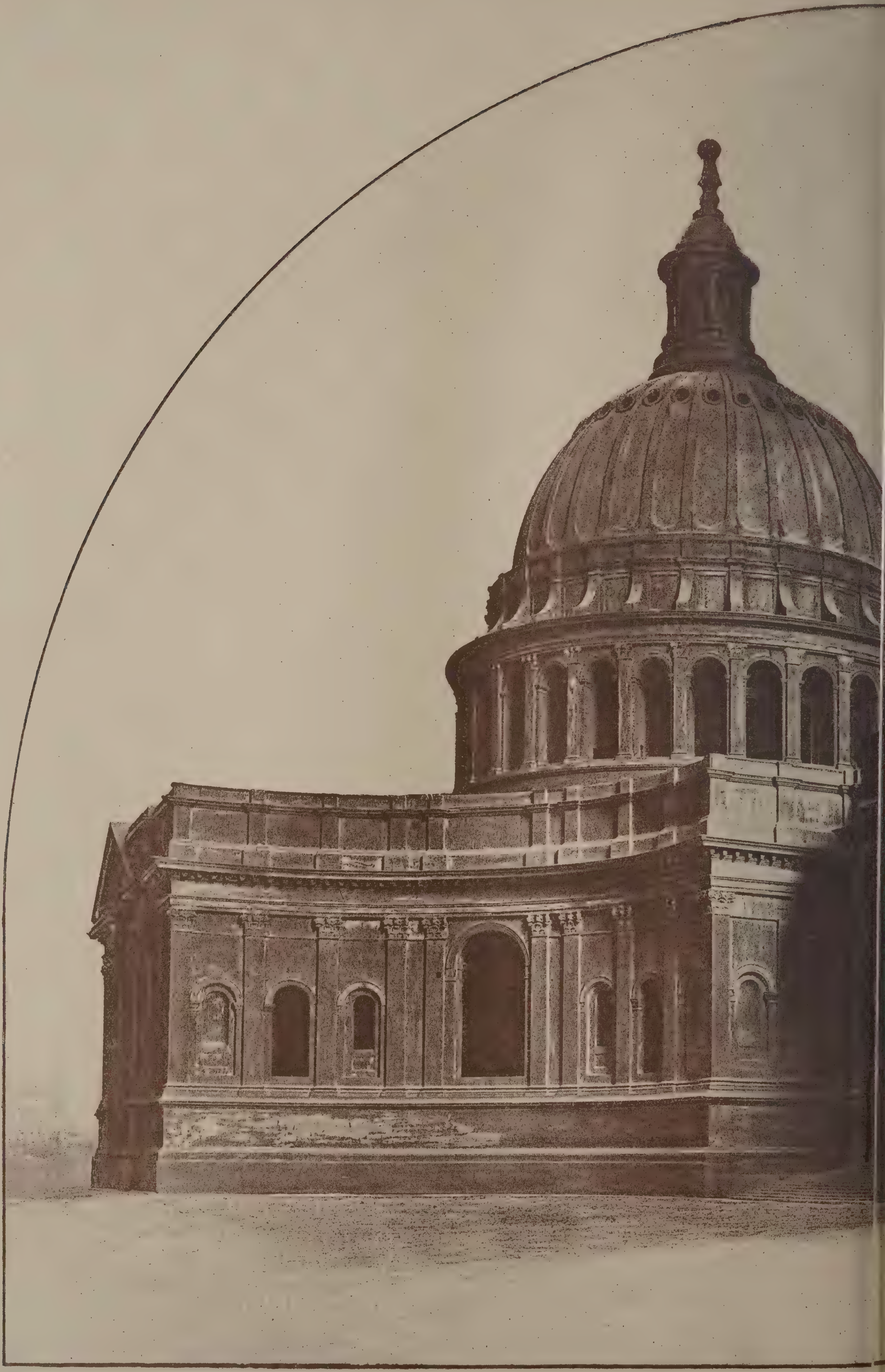
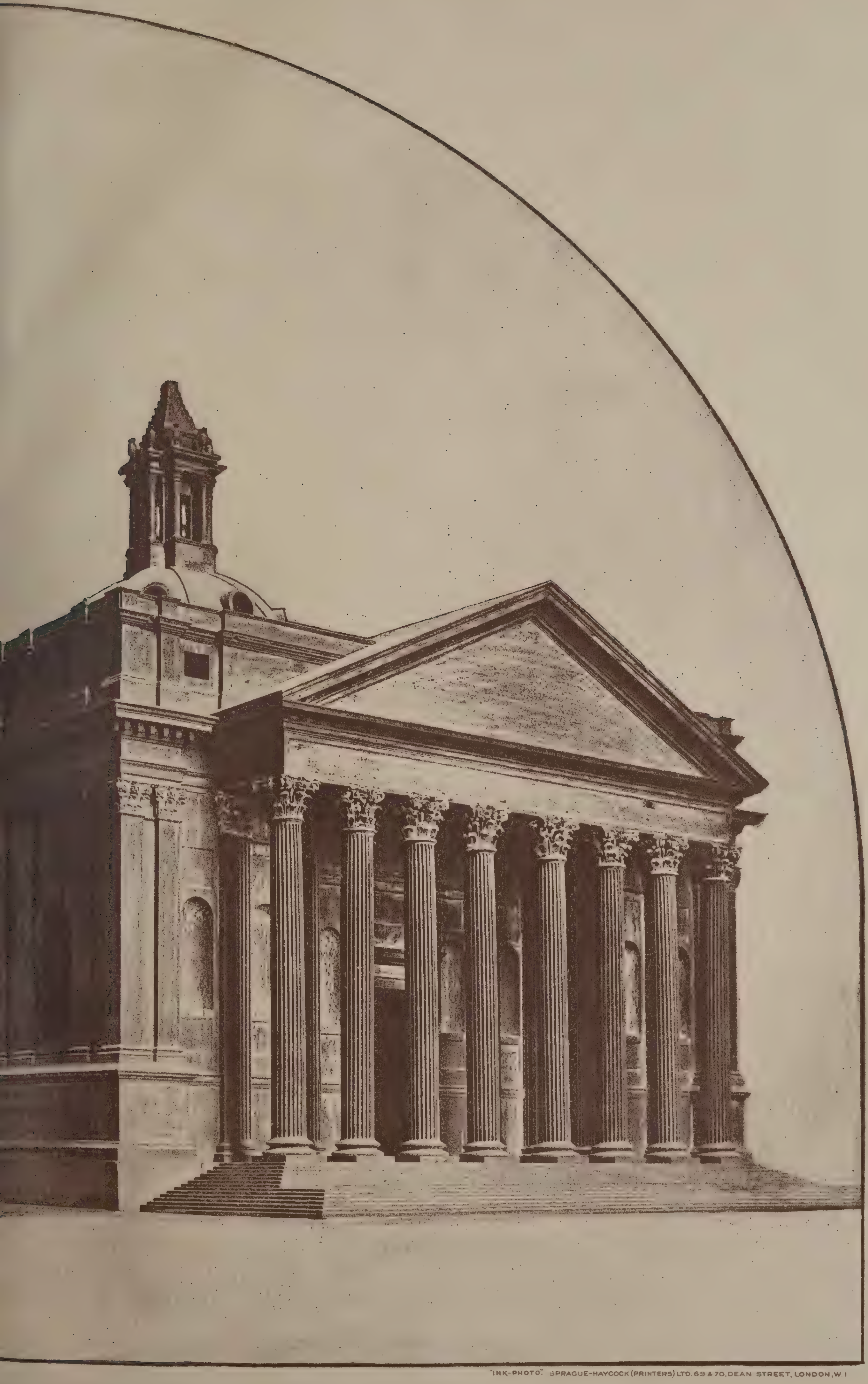


PHOTOGRAPH OF WREN'S



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R ST. PAUL'S CATHEDRAL.

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Royal Institute of British Architects.

The eighth general meeting (ordinary) of the session was held at 9, Conduit Street, W., Mr. Paul Waterhouse, M.A., F.S.A., President, in the chair.

The decease was announced of the following members:—John Reginald Naylor, elected Associate 1881, Fellow 1894; William Walker, of St. Andrews, N.B., elected Fellow 1921; C. F. Innocent, elected Associate 1897; and William Arthur Webb, elected Associate 1890. Mr. Webb was a member of the Art Standing Committee from 1915 to 1920 and 1921-1922, and was Hon. Secretary of that Committee for Session 1919-1920.

Four new Associates presented themselves for formal admission by the President; of these three were ladies, viz., Miss E. K. D. Hughes, Miss Winifred Ryle and Miss G. W. M. Leverkus.

Mr. H. V. Lanchester, F.R.I.B.A., then delivered a lecture, of which we here give an abstract, entitled:—

Architecture and Architects in India.

The architect at home can put himself in possession of quite a comprehensive knowledge of the history of Indian architecture. The works of Ferguson, Vincent-Smith, E. Havell, and others, not to speak of the publications of the Indian Archæological Department, would enable anyone interested to form a fair idea of the complex influences under which this art has expressed itself.

Ferguson deserves every credit for making a conscientious effort to classify Indian architecture, but he suffers from the inevitable limitations of the layman in dealing with an art such as architecture, and, while his work was improved upon by Vincent-Smith and others, there is still much to be done in tracing the developments of the art of building in India on a logical basis. Havell in his books has effected much to bring about a better appreciation of the Indian as architect. We ought to be grateful to him for pointing out how our methods are rapidly destroying every chance that remains of architecture continuing as a living art in India. Havell is undoubtedly correct in his contention that the traditional art of the country still exists, and that, though it has lost a little in vitality during the last two centuries, it still possesses enough to be worth cultivating by every means available. Unfortunately, our Government has been too out of touch with the arts to realise that architecture is the soul of building, and that it was worth while making some sacrifices to save it. The main difficulty has been that the arts in India are indissolubly linked up with mediæval methods of production, the building being the result of the co-operation of the craftsmen concerned in it, while control must be of the loosest practicable kind and the character of the work subject to suggestion and revision from start to finish. With the right man in charge, fine buildings in the vernacular style could have been thus produced, and, though the cost would not have been capable of exact determination beforehand, experience has shown that it would not necessarily have been greater than by the methods now employed, which have produced little that has other than a purely utilitarian value.

Our error has been that of imagining that the matter of paramount importance in building is that everything should be on paper beforehand in the form of drawings and estimates. Hitherto in India there has been practically no architectural ability capable of working on European methods, while there is a large body of artists who can work on mediæval lines. We have made the mistake of saying that we don't care what the results are, provided the methods have been businesslike, and what we picture as businesslike methods have, in the hands of the only men available, brought building down to the crudest level and have eliminated all those who possess the capacity for better things. As showing the poverty of brain capacity available, "type designs" for various classes of buildings are issued by Government which, whatever the original intention may have been, are slavishly copied regardless of site, local conditions and material available. By far the best craftsmanship and the only architecture showing real development in any of the vernacular styles is found in works away from official centres and the influence of Government control. The cost of such work is found to be less than we should have paid for the same thing, not reckoning our overhead charges, which range from 22 to 28 per cent. to cover drawings, estimates and supervision.

Apologists have argued, "Oh! but how otherwise can you stop corrupt practices and peculation?" As a matter of fact, we stop neither, because no contractor takes up official building except with a view to make as much as he can out of it. It offers him no other interest, whereas the mistries collaborating on a vernacular building are keen on their work and are content with what we should regard as less than a living wage. In some districts no mistri, even one in charge of very great works, receives more than R40 per month.

Another drawback to our method is that we have reduced constructive expedients to their crudest forms. Instead of the vault, dome and arch, with thrust distribution and such expedients, we provide nothing but square boxes covered with steel joists and jack arches, which saves thought and planning.

If anyone were sufficiently interested in getting fine work, it would be quite possible to keep within a definite cost limit and yet give sufficient latitude to secure the activities of high-class mistries, who have learnt the art of design on their own buildings and who produce something far superior to the men who are trained, as far as they are trained, on European lines.

At the same time, we are not to assume that the mistri is impeccable. The Indian has always been very eclectic in his art, and seeing the chaotic condition of modern building in India he is apt to seize hold of the bad as well as the good and to fail by embodying inappropriate elements in his conceptions.

Passing on to a cursory review of the architecture in general, Mr. Lanchester said that the two main influences that have dictated architectural forms are timber construction (including bamboo) and the rock-cut chambers and temples. We must date the former as earlier than the latter, as even in the rock-cut work there are many indications of wooden construction and the earliest stonework is handled on similar lines. At the same time, we must bear in mind that Indian quarries produce very long stones, in some cases up to 40 feet, of quite small scantlings. These can easily be split off by heat, and therefore it is quite simple to use stone in the form of framed structures. This facility, from the architect's point of view, has been a source of weakness rather than strength, but the genuine feeling for composition shown in Indian buildings goes a long way towards disguising minor illogicalities of structure.

The rock-cut work initiated a vigorous and strongly characterised type of design very definitely retaining the effect of stratification, which enabled most complex treatment of decoration to be employed without loss of strength and stability in the general effect.

The arch took a place in Indian architecture late in its development; how far it was an indigenous development and how far imported is still a matter of argument—though the question is clearly capable of settlement.

To our taste most Indian buildings are over-enriched. Those enrichments all have a meaning to the Indian mind, and they are not barbaric but proportioned and distributed on a strictly architectonic basis. No style shows a higher standard of skill than the Hindu architecture up to the seventeenth century in the distribution of masses, the proportions of solids and voids, and the surface treatment with a view to contrasting the plain and enriched. When foreign styles were introduced, and the traditional work underwent modification in the attempt to assimilate these, there have naturally, at times, been failures in technique, but these are certainly no more evident than those we find when, say, the Classic revival impinged on the Gothic tradition in the sixteenth century in Europe. In fact, the architectural development remained much more consistently continuous than with us, and has continued up to the present day not, it must be admitted, without numerous lapses owing to a too eager desire to incorporate every new element, but still exhibiting vitality and imaginative power.

It is this imaginative aptitude, which, inadequately restrained by an appreciation of the logical basis of expression in architecture, is responsible for the wild efforts that tend to throw discredit on the soundness of present-day Indian art, but much of this madness seems less distasteful than the banalities we have perpetrated in endeavouring to erect buildings based either on an inappropriate style or an imperfect sympathy with the local tradition.

How is it now possible to reconcile all the conflicting demands of the present very complex state of Indian polity? We have these demands ranging over every degree, from such as we get at home to those on strictly traditional lines, as in the religious architecture of the temples. In between the extremes we find a series, comprising buildings for official, educational, manufacturing and commercial purposes, all of which come nearest to the European ideals, subject to the variations demanded by climate; then residential buildings which run through the whole gamut according to the habit of life of those demanding them. At the other extreme are the religious structures, both Hindu and Moslem, where the traditional methods must remain paramount.

In many parts of India tradition is still so strong that one cannot conceive of any course as a right one that neglects or ignores it. At the same time, it is difficult to see how the architect trained on European lines is to remodel his technique so as to base his methods of expression on those with which he is unfamiliar.

There is no inconsistency between Indian architecture and the buildings which are in demand there at the present time. It is so flexible in form that the variations involved in the structure of modern buildings are less rather than more in comparison with those demanded in Europe. It is true that the basis of design in India has always been geometrical rather than arithmetical—how, indeed, could the mistri have memorised complicated plans unless by this method—but it is all to the good if we can ourselves build up our schemes on such a basis. Many of the best modern designs owe something to such a method, and we have only to look at some of the finest plans of recent times to see this. Perhaps that of the Hôtel de Ville, Paris, is one of the most illustrative examples.

The Englishman goes to India when his training is supposed to be completed, and then gets very little time to familiarise himself with the essentials of Indian architecture, while the training of the Indian follows much too closely that of the European. If, instead, of this, there were architects who had from the first thought of their work only in terms of the Eastern styles, styles that in India only demand a somewhat further fusion to reach a definite basis that could be considered classic, we should have a body of men who could prepare designs in which the suggestions made by, and the workmanship of, the mistri (now almost excluded) would fall into their places, the first adding interest to the design generally and the second ensuring beauty in the execution of the detail. The difficulty of employing the non-literate but skilful artist would disappear when the directing mind is sympathetic to his employment.

The time seems to be approaching when the architect will have a chance of establishing himself in India, as there is a strong feeling against the continuance of departmental control of works in place of such as could be effected by private agency. It is unquestionable that the substitution of individual effort for an official routine will be to the advantage of both the European and the Indian in bringing to the front those who are best qualified and spurring them on to do their best instead of smothering initiative under a mass of unintelligent regulations. But the architect for India should have a distinctive training, and if the Royal Institute is taking steps to offer membership to those who pursue their studies in India the qualifications should be considered in the light of Indian conditions. As a hard and fast examination has now been to a large extent abandoned, this will be less difficult than it would have been a few years back. Up to the present no architectural school in India has been able to bring its syllabus up to the requirements of the R.I.B.A. for the partial exemption in the final tests offered in such a case.

If Bombay and other schools could develop up to the R.I.B.A. standard this would enable Indians to qualify more satisfactorily than by a visit to England, which tends to distract and confuse their architectural ideals.

There remains the problem of those men at home who feel drawn towards the East. At present, such architects as go to India are usually chosen too late in their professional career to adapt themselves easily to new conditions. It would be better if they went out, at latest, as soon as qualified, and while at a stage when they would be receptive towards the technique of Indian design. Not, of course, with the idea of immediate practice, but to join an architect, or an office for a while. This would have the additional advantage that those who found the climate or conditions unsuited to them would be able to return without injury to the continuity of their career.

DISCUSSION.

Mr. James Ransome, F.R.I.B.A. (the first holder of the office of Architect to the Government of India) in proposing a vote of thanks, remarked that the questions raised by Mr. Lanchester were problems with which he (the speaker) had been faced. It was very difficult for a European really to understand the architecture of the East, because he started from such an entirely different point of view. Architecture, as Westerners understood it, was the art of decorating useful necessary structural forms. But Hindu architecture, at all events, was more the art of trying to imitate forms that were first made in some other material—such as the rock-cut temples which were based on the wood and mud temples. When they started to decorate, they decorated more and more till their buildings became a mass of decoration. They have never been surpassed in the beauty of their sculpture. Then came the Moguls, a nation of builders coming to a nation which understood decoration. Hindu-Saracenic was the most beautiful resultant blend. But they never went so far as Europeans did in trying to make their structural forms beautiful, though their buildings were fine and massive and impressive.

Mr. Herbert Baker, A.R.A., described the lecture as full of knowledge and experience and insight, as well as suggestiveness. The question of how far the "mistri" could be left in sole charge of operations was a difficult one. His own belief was that they were all right for small buildings, but not suitable for operations on the scale of the new Delhi. Architects should go out to India when they were young and malleable. Civil Servants were now considered to be too old if they began at twenty-three.

Professor Beresford Pite said it was a very important subject for the Royal Institute. They should, on behalf of the British Empire, extend their sympathy, knowledge and work to cover that part of the Empire represented by India. It afforded an opportunity for pleading for some special consideration for those members who were in India, and the extension of some union with many other practitioners, not only English but Indian, in India itself. What was true of the British Empire in India was true of the Empire in Canada, South Africa and Australia. If the Institute extended their ideas to the extent of the Empire, their ideas on architectural education would have to extend too. At present the personal standard of individual taste was applied to the great architecture of India. But some much wider ground than individual taste must be sought before they could understand Indian art in itself or our relation to it. It was part of the Institute's duty to consider the educational apparatus and equipment they possessed for the exercise of architecture in India.

Sir Lionel Jacob, K.C.S.I., declared there were many Indian master builders waiting to be gathered in to prove the salvation of the architecture of the country. About ninety years ago the Asiatic Society approached a certain native scholar with a view to his writing a book on Hindu architecture. This man hunted all over Madras to find anyone to whom the oral tradition had been handed down, but he failed to find anyone who could tell him anything. So the scholar had recourse to manuscripts for his information, and these he translated. The result was to make confusion worse confounded. It seemed to him (the speaker) that the right thing was to try to evolve an Anglo-Indian style. Mr. Ransome, and also Mr. Begg, who followed him as Architect to the Government of India, had already worked in that direction. They had to recognise that no art could be evolved in a day or even a few years—it took a long time. Sir Edwin Lutyens and Mr. Baker were blending East and West at Delhi. It had to be admitted that some past official buildings were mere boxes. If the British had acquired India as the Moguls had acquired it, they would have built cathedrals and monuments to their glory. Instead, the British build cheap houses to live in, and cheap churches to worship in and cheap offices to work in. They did not build monuments out of the blood and tears of the conquered race. The Taj Mahal, built by Shah Jehan, and the Ganges Canal, built by the British, cost much about the same. India needed canals and still more canals, railways and still more railways, as well as many other useful things. As to the "mistri," his own experience was that they were splendid fellows to carry out orders and good craftsmen, but that they were not master builders. The country must look to the British architect. It was to be hoped the present form of government in India, with British and Indian working side by side, would succeed.

Captain George S. C. Swinton, speaking as a layman, emphasised the importance of shadow in India. He hoped something would be done to evolve a form of architecture which combined the advantages of the East and the West.

The vote of thanks was put to the meeting and carried by acclamation.

Mr. H. V. Lanchester replied to the points raised, and the meeting terminated.

Competition News.

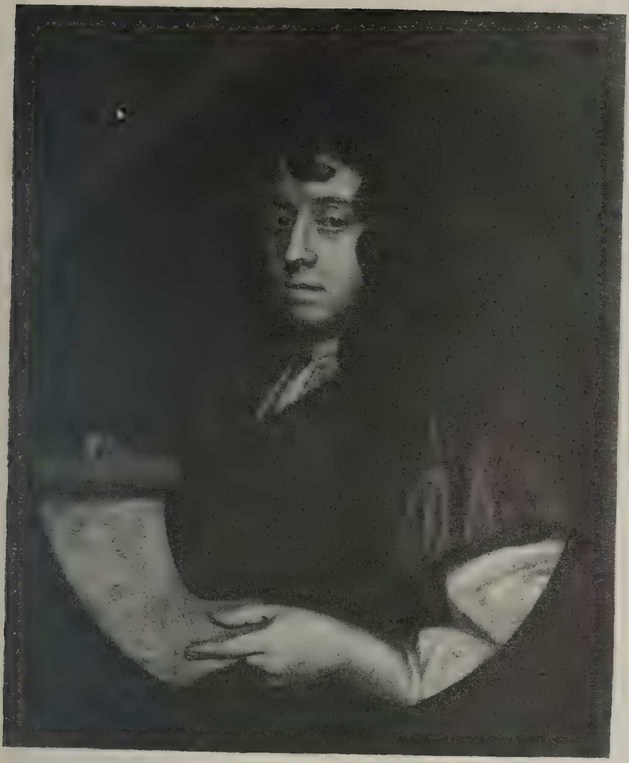
The President of the Royal Institute of British Architects has nominated Mr. Stanley Hamp, F.R.I.B.A., as Assessor in the competition for the proposed Cenotaph, Paragon Square, Hull.

Members of the Society of Architects are notified that the conditions of Prestwich Co-operative Society's Premises Competition are not in accordance with the regulations, and are requested not to take part in the competition without first ascertaining from the Secretary that the conditions have been approved by the Council.

Mr. E. P. Warren, F.S.A., F.R.I.B.A., will form one of an international jury of four, which will judge the plans submitted by Swiss architects for the new building to be erected at Geneva as a permanent home for the International Labour Office of the League of Nations. The other members of the jury are French, Italian, and Swiss—viz., M. Maurice Brincourt, M. Piacentini and M. A. Guyonnet.

The Troon War Memorial Committee invite designs of a war memorial for Troon at a completed cost of from £1,500 to £2,000. No premium is to be paid. The sealed designs and particulars (marked "War Memorial") should be lodged with the Hon. Secretary, Robert Young, Town Clerk, Troon, by March 7.

Mr. N. H. N. Darbey, P.A.S.I., has been awarded first premium of £50 in the competition for the lay-out of Hills Estate for the Douglas Town Council, Isle of Man. The estate is of about 14 acres and is to be developed with working-class houses.



SIR CHRISTOPHER WREN. By KNELLER, from the R.I.B.A.

Portraits of Sir Christopher Wren.

"Sir Christopher Wren," says George Vertue, F.S.A., whose notes on art and artists are now familiar to those readers of THE ARCHITECT who for two years have followed our series of articles on the British Sculptors, "had his picture drawn several times—and also cutt in Marble which is lately reposited at the bodleyan library Oxford" (Add. MSS. 23,086). Of this bust "cutt in Marble" we shall have more to say, but, as we shall see, Vertue's "several times" is an understatement, and there are few men of Wren's age of whom so many portraits exist. The subject has been curiously neglected by the biographers, and no list even approximately complete exists anywhere; it may therefore be of interest to describe these portraits, now that the approaching bicentenary of his death is giving Wren that prominence to which his achievement so well entitles him.

Wren was not a man who showed his age. The famous portrait by Kneller, executed in 1711, when he was 79, might represent a man of 55; and it is consequently hard to place the undated younger portraits in chronological order. The youngest of these is perhaps that in the R.I.B.A., and if, as is believed, it is by Kneller, it must have been painted after 1674, the year in which that artist, according to Vertue, arrived in England, and is consequently later than the "bust cutt in Marble," which, as we shall see, was executed about 1673. With this bust, therefore, our list shall begin.

1. Bust, now in the Ashmolean Museum at Oxford, by Edward Pierce. This impressive and beautiful work, an illustration of which we gave on September 2, 1921, shows Wren wearing his own hair, and Vertue's passages on the subject, not previously quoted, must be given in full:

"The Marble Bust of My Father in the picture Gallery at Oxford was the performance of Edward Pearce about the year 1673.

this in a Letter from M^{r} Chr. Wren 1742
to M^{r} Profes^{r} Ward [of Gresham College]."

Thus Vertue in 1741 (Add. MSS. 23,073), who only the year before had noticed the work on his tour with Lord Coleraine, and written: "in the Bodleyan Library. Gallery of pictures—a Bust of Marble S^{r} Chris. Wren. Q. who *cutt* it?" Evidently he had forgotten a previous note made by himself: "in Bodleyan gallery the Bust in Marble of Sr. Christ^{r} Wren done by . . . Pierce the Same person as my moddel of Milton."

This portrait, then, is the earliest dated likeness of Wren, and is particularly interesting as showing him in his own long hair; there is a cast at the R.I.B.A., and also a late marble copy, a companion to Rysbrack's bust of Inigo Jones, also a copy.

2. Portrait by Kneller, in the R.I.B.A., probably the most youthful painting in existence, showing the architect with light brown hair, loose drapery and puffed white sleeve, holding a plan. It has never been engraved.

3. Portrait of Wren, in the possession of Wren's descendant, Mrs. Piggott, showing him with large lace cravat and high bare forehead, holding a scroll. Apparently unpublished, and not seen by the present writer.

4. Portrait by John Closterman, executed about 1688, wrongly attributed by Mr. Collins Baker to John Riley. The chiaroscuro engraving by Kirkall after Cooke bears the inscription: "J. Closterman ad vivum pinxit." It is interesting that the same artist painted a portrait of Wren's great fellow-worker, Grinling Gibbons.

5. Portrait by Kneller at Ranelagh, the old Barn Elms, over the hall mantelpiece, illustrated in the "Connoisseur," vol. 31, p. 301. Less pleasant in character than other portraits, but a fine work of art.

6. Half-figure, seated, by Kneller, curtain behind, St. Paul's in the background. This famous work in the possession of the Royal Society has been frequently engraved, and is marked by the lock of hair curiously brought forward over the left shoulder, which is mistaken for drapery by at least one careless engraver.

7. Seated figure in velvet coat, richly braided, with embossed buttons, by Kneller, in the National Portrait Gallery; plain cravat with fringed ends. This has often been engraved, and, as the mezzotint of the head by J. Smith, published in 1713, shows, was painted in 1711. It is therefore among the latest portraits of the architect.

8. Portrait painted by Kneller, Verrio, and Thornhill, Sheldonian Theatre, Oxford. Whole length, seated to left; grey periwig, cravat and ruffles, and blue drapery over left arm. A plan of St. Paul's in left hand; the right points to a celestial globe, bust and mathematical instruments, and a volume showing plan of the Sheldonian Theatre. Curtain behind, and view of the Thames and City of London. This work, as the inscription shows, was begun by Verrio (*d.* 1707) and completed by Kneller and Thornhill, evidently after the winter of 1719–20, when Thornhill was knighted; Kneller had been knighted as long before as 1691. (Mrs. Poole, "Oxford Portraits," vol. i, p. 133.)

9. Portrait at Welbeck, attributed to H. Gascard; holds drawing of the elevation of St. Paul's, but does not much resemble other portraits.

10. Portrait in the Deanery, St. Paul's, "like the National Portrait Gallery Kneller," as Sir G. Scharf saw (Notebook in the National Portrait Gallery).

11. Portrait by an unknown artist, in private hands, showing Wren leaning on a carved balustrade. (Photograph in the National Portrait Gallery.)

12. Portrait said to be in Freemasons' Hall, where the trowel and mallet used by him in laying the foundations of St. Paul's are also preserved; now believed not to represent Wren.

13. Portrait at Eton, sketched and described by Sir G. Scharf on September 4, 1861: "Sir C. Wren, at Entrance to the Library." Figure standing to left, with stick and wig less flowing than usual, three-cornered hat under left arm, "St. Peter's [surely a slip for St. Paul's] in background" (Scharf Notebook, National Portrait Gallery).

14. Portrait engraved after a lost bust by S. Coignand for the "Parentalia," the only profile portrait, and evidently characteristic, or it would not have been chosen by the younger Wren as the only portrait of his father in the book.

15. Admirable carved medallion portrait by Grinling Gibbons, in boxwood, presented to the R.I.B.A. by Thos. Willoughby, F.R.I.B.A., in 1861. Inscribed in a hand of about 1810: "From the Collection of the [*late* James]s

Wyatt, R.A., Architect." This extraordinarily interesting portrait closely corresponds with the Kneller portrait of 1711 (No. 7 in our list), even to the plain cravat with fringed ends and the embossed buttons, and must therefore date from the same period. This memorial of the great alliance between the architect and his assistant is perhaps the most interesting we possess.

16. Death mask, All Souls' Library.

17. Bust (by Henry Cheere ?), All Souls'.

18. Posthumous bust by Rysbrack, Queen's College, Oxford.

19. Engraving of full-length figure holding design for St. Paul's and compasses; left hand on pedestal, on which lies a plan. Fancy portrait by Cipriani, British Museum.

20. An odd nineteenth-century engraving showing him with compasses and plan of St. Paul's; engraving of St. Paul's below. British Museum.

21. Figure in low relief. Albert Memorial.

22. Mosaic figure. Victoria and Albert Museum.

Setting aside the posthumous portraits (Nos. 17–22), we have thus sixteen authentic portraits of Wren, and the list even yet may not be complete. These sixteen cover the fifty years from the Pierce bust of 1673 to the death mask of 1723, and are a series of remarkable interest. We see from them that the great architect was a slight spare man with abundant brown hair, grey-blue eyes, and refined face; what we do not realise is his small size. "Thin and low of stature" we know he was, and the story of Charles II. telling him the rooms at his new hunting-box at Newmarket were too low, being told "Sir, I think they are high enough," and crouching down till he was no taller than Wren, when he good-naturedly said, "Ay, Sir Christopher, I think they are high enough," illustrates the point.

Wren's serenity of temper is well shown by the portraits. The fire of the Pierce bust was subdued to a tender sweetness in old age, and if Wren was fortunate in his portrayers, they were equally fortunate in their subject. The obvious chronological relation between the best-known of the Kneller portraits and the admirable Gibbons medallion is a point not hitherto raised, and this first attempt at a complete list of his portraits will, it is hoped, throw a new and not uninteresting light upon the greatest architect whom England has seen.

Wren's Churches as National Monuments.

At last week's meeting of the London County Council Mr. J. P. Blake asked the Chairman of the Local Government Committee whether he was aware of the revival of the attack upon the Wren churches in the City of London, and whether the Committee would consider the possibility of their being scheduled as national monuments, as would be the practice in Italy and other countries, and so preserve them from destruction, especially in view of the present centenary of the architect, Sir Christopher Wren ?

Mr. Andrew T. Taylor (Chairman of the Committee) stated in reply that his Committee would take into consideration Mr. Blake's suggestion, but meantime it was necessary to point out that ecclesiastical buildings did not come within the definition of "monument" in the Ancient Monuments Consolidation and Amendment Act, 1913. It was, therefore, doubtful if there was power to schedule any of the City churches as "ancient monuments." It was understood the question of amending the Act had been considered, and in any case the London County Council had twice passed resolutions deploring the proposal of the City of London Churches Commission to demolish 19 City churches. It would be most regrettable if the Wren Bicentenary were signalised by the wilful destruction of any of the architect's works.

"My Committee will watch the course of events very carefully," added Mr. Taylor, "and report to the Council when action is necessary."

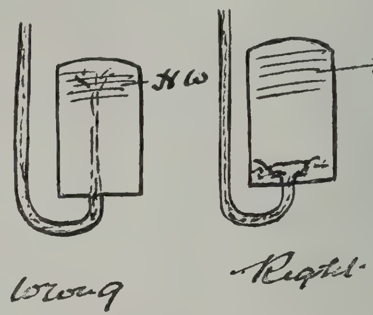
The Newcastle Maternity Hospital Committee on the 16th inst. decided to begin the alterations to the Industrial Schools, City Road, Newcastle, with the object of making the premises suitable for a new maternity hospital, at a cost of at least £10,000. The contract has been secured by Mr. Lumsden, building contractor, Newcastle, and the architects are Messrs. Cackett and Burns Dick.

Correspondence.

Hot Water System.

To the Editor of The Architect.

Sir,—Your correspondent "H. T. N." has not furnished sufficient information to enable one to determine what is the matter with his hot water service. Assuming, however, that the lay-out of his pipes and pipe connections to the cylinder are correct, the probable cause is "boring," and I expect an examination of the inside of the cylinder would disclose the fact that the cold supply is being delivered vertically, with the consequence that it bores through the bulk of water and cools the top strata from which the hot is drawn. The fact that there is noise when the water is drawn serves to confirm this opinion. The cold supply should always be delivered *across the bottom* of the cylinder. This can be done by using a bend or a tee on the pipe thread inside the tank.—Yours, etc.,



Shawfield Park, Bromley. Wm. A. Young.

Light and Health.

To the Editor of The Architect.

Sir,—Dr. Saleeby's plea for brighter cities and the use of light-reflecting materials such as glazed bricks and terra-cotta in buildings is supported by scientific inquiry.

The findings of the Industrial Fatigue Board show that in fine linen weaving, for example, production in artificial light falls off nearly 11 per cent. as compared with production in daylight. In silk weaving there is a falling off of 10 per cent. To this direct loss on labour must be added the cost of artificial illumination.

Again, the Underground Railways of London have recently made improvements in the lighting of their stations, which are largely lined with white glazed bricks. The augmented light, reflected from these shining surfaces, has been found to accelerate the movement of traffic. By scientific experiments over a considerable period it is proved that people move more quickly in the brighter light, with the result that during the busy hours there is an average saving of 6 seconds in the dispatch of trains.

That, too, is surely a point worth noting by factory and workshop owners. Blithe movements indicate good spirits, and good spirits mean better work.—Yours, &c.,

House of Commons, J. M. Hogge.
February 14.

Architect's Claim for Fees.

In the King's Bench Division on Friday (February 16) Mr. Justice Swift heard an action by Mr. Albert Smith, an architect, of Khedive Road, Forest Gate, against Mr. L. Goodman, of Commercial Road, Whitechapel, for £125 agreed professional fees for services rendered in preparing plans and measuring premises and specifications for the proposed rebuilding by the defendant of the Imperial Picture Theatre, Leytonstone Road, Stratford, E. Defendant denied liability.—Plaintiff said he was asked to prepare plans, etc. The first set of plans were said to be on too large a scale and he was asked to reduce them by half. He agreed to take 5 per cent., although the usual professional fee was 6 per cent. His plans were approved, but the West Ham Council would not pass them unless a further back exit was provided for. The work did not go through, and plaintiff claimed on the basis of 1¼ per cent. on £10,000, the latter figure being the estimated cost of the building. In the ordinary way he could have asked for half fees. He disagreed with the suggestion made by defendant that he agreed not to charge fees if the work was not carried out.

Mr. Goodman deposed that the agreement was that if the Council would not pass the plans, the plaintiff should claim no fees—if the work went through, the fees should be 5 per cent. The idea was to spend £1,200 to £1,500.

His Lordship said he accepted Mr. Smith's evidence without hesitation, and would give judgment for the plaintiff for 100 guineas, with costs.

Wren's Work in London.

At a meeting of the London Society on February 9 at the Royal Society of Arts, John Street, Adelphi, a lecture was delivered by Mr. Mervyn Macartney, F.R.I.B.A., on the above subject.

Canon Alexander, who presided, in introducing the lecturer said there was only one of Wren's works in London of which he knew anything, and that was St. Paul's. But he would mention another building. Wren was entrusted with the building of a new Town Hall at Windsor. When the building was completed the town councillors thought that the upper floor would make a very good dancing floor, but they thought it unsafe. They therefore requested Wren to build a number of columns to support it. He told them it was perfectly safe, but he was obliged to do as they wanted. It was said, however, that on inspection some years later a gap of several inches was found between the top of the pillars and the upper floor which they were supposed to support. If that story was not true, it was very well invented. Like many good men, if Wren thought his way was the best, he considered it was right he should get it. He generally did get it in the end. One exception was his plan for the rebuilding of London. The speaker believed that if Wren had been alive to-day he would never have permitted the carrying out of the project for a St. Paul's Bridge. When one came to consider Wren's works in London one was struck not only by their beauty and variety but also by their extraordinary number; the reason for that was not merely his consummate genius, but that Wren lived to a very great age. His present successor (Mr. Macartney) had declared that to be appointed to the office of surveyor of St. Paul's meant an addition of ten years to a man's life. He (the speaker) was glad to hear of that extension. The real secret of Mr. Macartney's longevity must be the fact that when he faced a particularly wearing problem he came and quietly deposited it on the Canon's shoulders. But the cathedral's surveyor had amassed a wide knowledge of Wren's works.

Mr. Macartney relied upon lantern slides to provide the main interest of his lecture. The first slide was taken from the well-known composite drawing by Professor Cockerell, including the principal buildings designed by Wren. In exhibiting slides of Greenwich Hospital, Mr. Macartney pointed out that it was the work of a great many different architects, beginning with Inigo Jones and Webb. When Queen Anne came to the throne she wanted to found a hospital there and got Wren to prepare a plan. As a composition it stood as one of the finest things ever designed in any country, and he hoped it would never be changed. The main outline still remained as Wren designed it, though there have been additions by Hawksmoor and others. The Greenwich Observatory was made up on the cheap out of old stuff given to Wren, who, being an astronomer, wanted an observatory.

From Greenwich, coming up the river to London Bridge, one came to St. Magnus, which appeared as if it might be one of those doomed to disappear as somebody wanted the money. (Cries of "No!" and "Why?") When the proposed enormously high buildings were erected the church would sink into insignificance.

St. Dunstan-in-the-East had a tower which was supposed to have been designed by Wren's daughter. St. Margaret Pattens has very fine leadwork in panels on the steeple and interesting carving by Gibbons; Wren acted as churchwarden here, and one of the pews has a canopy bearing his initials.

The Monument was a very fine upstanding thing. Wren thought he would make a telescope of it—an astounding idea. Wren's Custom House did not last long, it was burnt almost immediately after erection.

St. Mary Abchurch was a fine little conception: though outside a little bald, inside it seemed very fine; as it had recently been cleaned up one could now see it. This gem was one of a series of four or five designed with domes: others being St. Swithin's, St. Stephen, Walbrook, and St. Mildred's, Bread Street. These were stated to have been designed just before he did the big dome at St. Paul's. St. Stephen, Walbrook, was a splendid conception and a beautiful composition much admired outside England.

St. Mary-le-Bow, one of Wren's earliest designs, was an enormously clever thing. There had existed no other steeple like it before and it was "Wrenian" all the way through. Wren's work in London remained entirely individual and did not look like French or German or Italian. It simply belonged to London.

St. Lawrence, Jewry had more money to spend than most—hence its Portland stone exterior and elaborate carving inside. Its vestry makes one wish one could take it home.

In the funny little church near the old G.P.O. of St. Anne and St. Agnes, Wren utilised his space to the utmost and exactly made the building fit the area. The outside looked rather mean, for it was in plaster and had a diminutive tower; the inside was charming.

Another not-wanted church possessed one of the most beautiful steeples. The effect of the slight curves on the tower was most charming, especially if seen on a summer morning. The interior of St. Vedast, Foster Lane, was not much, so the authorities proposed to leave the tower and take the other part away.

The Old Christ's Hospital, near Newgate, was a lovely thing.

Wren's College of Physicians in Warwick Lane was pulled down about 1840. It seems to have been excellently designed for its purpose. Wren, as a great experimenter himself, would have understood exactly what was required for such a place.

The existing fine western towers of St. Paul's were originally designed as pepper boxes. Thinking later that they did not seem grand enough, Wren designed the present towers, but used such thin stone that they have proved a constant anxiety. One of the glories of St. Paul's is the Bishop's Throne. The existing ironwork is largely modern and was not that put in by Penrose, though some of the latter has been worked in. The organ originally stood in the middle of the choir; being considered to impede the view it was removed to one side and later cut into two.

St. Mildred's with its little dome just fitted its site. No matter what was the shape of the site, Wren always filled it exactly without leaving any corners over.

St. Benet's in Queen Victoria Street was one of the few Wren built with brick and Portland stone combined. It is now used for Welsh services, and is very simple.

St. Bride's has the second highest steeple in London, though now actually ten feet lower than it was before Sir John Staines rebuilt the top part, not thinking it safe. The interior is very fine and shows one of Wren's cylindrical roofs. Wren had a great idea that churches should be primarily used for preaching, and that was the keynote of his designs.

The Middle Temple Gateway is very simple, plain and satisfactory. Perhaps some day it might be possible to bring back his Temple Bar to London, though not to its original site, but to somewhere like the Embankment.

How did Wren find the time to carry out all these works? It was a marvel. He did three or four palaces, a cathedral or two, fifty or sixty city churches and city halls. Wren must indeed have had his hands full.

Wren seems to have been very proud of St. James's, Piccadilly, especially because it was one of the cheapest he had ever done. It was a wonderful piece of design.

Wren's Marlborough House has been entirely spoilt by the extra storey superimposed on it. St. James's Palace includes a good deal of his work. Chelsea Hospital is one of the most satisfactory of his buildings. It was very, very simple, depending entirely on proportion. Little ornament was employed owing to lack of money. Kensington Palace was not all Wren's work; its Orangery was particularly satisfactory. At Hampton Court a good deal of work was dome by Talman, the clerk of works.

Mr. Ernest Law, in the course of the subsequent discussion, referred to the neglect of the valuable records of Wren's work, and suggested that a portfolio should be published of his alternative designs and suggestions for decoration. They were to be found in College Libraries and the Soane Museum. Part of the Wren Celebrations should be the publication of these most interesting, valuable alternative suggestions. Many of them might not be entirely the work of Wren, but the majority were, and it was for the critics to say which were his work and which that of his pupils. He had himself been able to trace from Wren's designs the origin of the great chestnut avenue at Hampton Court, which showed that, though it had never been attributed to him, Wren was responsible for it.

Sir Aston Webb, referring to the possibility of some of the City churches being taken away, said such a step would degrade London. It would be a disgrace if it could be said that just after the Wren Bicentenary they began to pull down his churches. What would they say of it in Birmingham, Liverpool and Manchester? To do such a thing would have a much more far-reaching influence than was realised. It would be disastrous. If All Hallows was moved to Croydon why not move the Whitgift Hospital to London ?

Forthcoming Events.

Friday, February 23.—Architectural Association. Members' Smoking Concert at 35 Bedford Square, W.C. 8 p.m.

Saturday, February 24.—Royal Institute of British Architects. Visit to Wren's City Churches.

Institution of Municipal and County Engineers. Meeting in the Council Chamber, Crewe. 11 a.m.

Monday, February 26.—Wren Commemoration Service at St. Paul's Cathedral. Address by the Very Rev. W. R. Inge, D.D. 2.30 p.m.

Royal Institute of British Architects. Wren Commemoration Banquet at the Hotel Victoria, Northumberland Avenue, W.C. 7 p.m.

Tuesday, February 27.—Royal Institute of British Architects. Wren Commemoration Visit to Cambridge.

Thursday, March 1.—Royal Institute of British Architects. Public lecture by Sir Ryland Adkins, K.C., M.P., F.S.A., entitled "Architecture and the Countryside (a Layman's Question)." 5 p.m.

University College, Gower Street. Lecture by Professor A. E. Richardson, entitled "The Public Buildings of Sir Christopher Wren." 5.30 p.m.

Town Planning.

We have received the following communication from the Ministry of Health :—

The Housing and Town Planning Acts imposed on local authorities certain obligations in the matter of town planning. The Ministry of Health, with a view to affording them practical help, has for some time past been making a thorough investigation of the problem and has now issued a set of town-planning suggestions in the form of Model Clauses for incorporation in town-planning schemes. From those Clauses it is possible to deduce the general principles which in the view of the Ministry should underlie a well-considered scheme of town planning. They are of important interest not only to the promoters of schemes but also to land owners and builders as well as to the general public.

The Clauses show that it is not intended that the details of estate development should be fixed and stereotyped in the scheme itself. The latter settles only the main outlines of development—*i.e.*, the most important roads and the building lines on them and open spaces, and the allocation of areas to their main uses, industrial or residential, as the case may be. It is recognised that such control as may be necessary of the actual development of estates within these larger limits can better be postponed, and that such features as the determination of estate streets and selection of small shopping centres (site planning as distinct from town planning) can be more conveniently and more safely arranged in the process of development rather than long ahead of it. Site planning and estate development are in fact recognised as matters in which the initiative should rest largely with the owners, subject to reasonable control and guidance on the part of the local authority, and not be settled beforehand for them.

A serious effort has also been made to secure that schemes shall be reasonably elastic in working. It is contemplated, for instance, that land in a town-planning area should be allocated to the uses, industrial or residential, for which it is best suited by its character and locality, and reserved in the main for those uses, but attempts at rigid exclusion of all other types of development without allowances for unforeseen circumstances and provisions for reasonable adjustment are deprecated. Where the probable future of an area is not sufficiently indicated, so that it is still neutral or indeterminate in character, it can be left to "supplementary zoning orders," made by the Council with the Minister's approval, and definite restrictions thus be laid down when the time is ripe.

Corresponding freedom to secure reasonable future adjustment is recommended as regards limitations on the density of buildings. Local authorities are urged not to settle restrictions on the number of houses to the acre rigidly and without any reserve power of variation, except in cases where the course of development can be already foreseen with sufficient certainty to make a settled restriction reasonably safe. Special provision is made to meet cases where difficulty may be found in complying with the limitations imposed on account of development that has already taken place or the smallness of an owner's holding. A caution is entered against imposing a specially low number of houses to the acre unless it is reasonably certain that the land concerned will really be developed at that figure.

It is not contemplated that town-planning schemes should normally include matters which can be more conveniently regulated by other means, such as revision of local bye-laws. Provision is, however, made in the Clauses to facilitate the relaxation of the width and standards of construction of subsidiary streets, an economy rendered possible by the planning of the street system as a whole and the regulation of the density and character of development.

So far as buildings are concerned, the only provisions in the Clauses, apart from control of density and character, relate to their height, the number of dwelling-houses which may be erected in one continuous block and the proportion of space within the curtilage which may be covered by buildings and the building line along the street. In all these cases a reasonable amount of elasticity is preserved.

Interesting clauses are those designed to prevent danger to traffic from close fences or hedges, to secure the preservation of trees, and to regulate the display of advertisements so as to avoid injury to the amenity of the neighbourhood.

The Clauses only indicate the general form which schemes should take and do not in any way relieve local authorities of the duty of fully consulting owners and other interests concerned in determining the actual features (roads, building lines, density standards, etc.) to be included in a scheme. The powers which the Town Planning Acts give local authorities in respect of the restrictions which they may impose upon land within a town planning area would be of little practical value, it is pointed out, if exercised arbitrarily. It is only by mutual understanding and co-operation that the full benefit of schemes, to owners themselves as well as to the general community, will be obtained.

"The Architect" Fifty Years Ago.

February 22, 1873.

The Leeds Board Schools.

The competition designs sent in to the Leeds School Board for three schools have been exhibiting at St. Andrew's Chambers. For Green Lane Schools twelve sets of designs have been sent in, the calculated cost of the buildings varying from £6,980 to £10,870. The design sent in by Mr. Geo. Corson, Cookridge Street, was selected by the Board. This plan is arranged for 1,084 scholars in four departments, viz., a department for boys over nine and one for girls over nine, a department for boys and girls from seven to nine, and a school for children under seven. The estimated cost of the buildings is £9,983, or about £9 4s. per head. The site, which has an area of 8,144 square yards, has been purchased for £1,425 4s. For the Beeston Schools, the site of which (2,362 square yards) has cost £590 10s., ten sets of designs varying in estimated cost from £2,400 to £4,428 were sent in. Mr. Backhouse, South Parade, has been the successful competitor. His plan, providing for 446 children in the two departments of boys and girls under seven, and infants, is estimated at the cost of the buildings, £3,150, over £7 per child. Twelve sets of designs were sent in for the Jack Lane Schools, and the design by Messrs. Adams & Kelly, Park Square, Leeds, was selected by the Board "on the ground," as stated at the last meeting of the Board, "of economy." The estimated cost of these buildings is £4,000, or six guineas per child, as there is accommodation taken for 632 children in three departments—boys over seven years and girls over seven, and infants. The cost of the site, 6,646 square yards, was £1,080. The accepted designs of the three schools have not yet been approved by the Education Department. When the requisite sanction is obtained tenders for carrying out the work will be invited. The Education Department architects prefer that the schools shall be 18 to 22 feet wide, but the Leeds Board adhere to their decision that they shall be 30 feet wide, and the Education Department have given way.

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Manchester Building Exhibition Competition.

In connection with this Exhibition (which will be held at the City Hall, Deansgate, from March 6 to March 17) cash prizes to the value of £100 will be awarded to architectural students under the following conditions.

1. No student over the age of thirty will be eligible to compete, and must be employed or resident within the area covered by the Manchester Society of Architects (see R.I.B.A. Kalendar) or must have been so when the submitted work was done.

2. The sketches or drawings must be solely the work of the student competing.

3. Discretionary power is vested in the Assessors as to whether the whole or any of the prizes shall be awarded or not.

4. The Management do not hold themselves responsible for loss or damage to sketches or drawings sent for competition, but every reasonable precaution will be taken.

5. The prizes are to be used for the furtherance of the architectural education of the successful competitors, in a manner to be approved by the Assessors.

6. Should there be less than a dozen competitors in either class, the Assessors can declare the competition null and void, or at their discretion award prizes of smaller value.

7. No distinguishing mark must be placed upon the drawings or notes. The name and address of the competitors should be enclosed in a sealed envelope and attached to the drawing.

8. Any matter or dispute not provided for in these conditions will be settled by the Assessors, their decision being binding and final.

9. The Assessors are to be appointed by the President and Council of the Manchester Society of Architects.

Class 1.—Measured Drawing: First prize £40, second prize £30. Competitors shall submit drawings of an area not greater than that covered by five double elephant sheets. These must be accompanied by original notes and measurements.

Note.—Name and address of competitor to be enclosed in sealed envelope and attached to drawing and not written on drawing. Post to Competition Manager (Architecture), Building Trades Exhibition, City Hall, Manchester, before 12 noon, Saturday, March 3, 1923.

Class 2.—Architectural Sketches: First prize £20, second prize £10. Sketches submitted may be in any medium and must not exceed twenty in number.

Note.—Name and address of competitor to be enclosed in sealed envelope and attached to sketches and not written on sketch. Post to Competition Manager (Architecture), Building Trades Exhibition, City Hall, Manchester, before 12 noon, Saturday, March 3, 1923.

Edinburgh Architectural Association.

"The Architect in India" was the subject of a lecture delivered last week to the Edinburgh Architectural Association, in the College of Art Hall, by Mr. John Begg, F.R.I.B.A., the consulting architect to the Government of India. Mr. T. Aikman Swan, A.R.I.B.A., F.S.A. (Scot.), presided. Mr. Begg said modern architectural practice in India was a comparatively negligible quantity, till at the beginning of the present century it received a fillip from the Government's action in initiating the recruitment to the Public Works Department of architects from home. It was still a slight affair compared to the vast opportunities which the country should, and could, afford. For a great number of years, perhaps a generation, it would require careful nursing, during which time everything would depend on the lead which the Government, with the Government architects, gave to the public in India with respect to the profession. The public had to be taught the value of the architects' services before the way would be clear and free for the growth and progress of a private profession in the country: but the public would assuredly take its line from the Government in this, as it had done in the case of every other profession which had become established in India. He predicted a great future for architecture and architects out there. The lecture was illustrated with lantern views showing a number of prominent and interesting buildings erected in various parts of India within the past twenty years, and revealing the progress in architecture that had been made during that period.

The statutory general assembly of the Royal Scottish Academy was held last week in the Library of the Academy at the Mound, Edinburgh, for the purpose of filling up four vacancies in the rank of Academician. The result of the voting was as follows:—Painters: Mr. Henry Lintott, Edinburgh; Mr. John Duncan, Edinburgh; Mr. Geo. Pirie, Glasgow. The runner-up was Mr. W. M. Frazer, A.R.S.A., Edinburgh. Sculptor: Mr. Percy Portsmouth, Edinburgh. The runner-up was Mr. Alexander Carrick, Edinburgh. For the precedent of an election of four Academicians at the same time it is necessary to go back to 1878.

Building Trade Crisis.

Negotiations between the employers and the operatives of the building trade were resumed in London on the 15th inst., and continued on the 16th inst. The following official statement was issued at the close:—

"The Wages and Conditions Council of the building industry met to consider the position that had arisen as a consequence of the notices submitted by the employers on January 11 for an extension of the working week to forty-seven hours for eight months, forty-four hours for two months, and forty-one and a half hours for two months; and a reduction in the wages paid to the building trades operatives from March 1. After a long and serious consideration of the whole situation, and with the general desire, if possible, to overcome the difficulties by negotiations, it was decided to adjourn the meeting until Friday, February 23, when the position will be further explored."

Mr. R. Coppock, general secretary of the Federation of Building Trade Operatives, speaking at Stratford (Essex) on the 18th inst., described the position in reference to the negotiations with the employers on hours and wages as very delicate. The employers had gone back to consult their constituents because, primarily, the men's representatives had refused to submit, without the consent of the rank and file, the question either of hours or of wages to arbitration. They contended they had the right of submission to their members on the question of arbitration. They believed the men were solid on the 44 hours' week. The employers had now reduced their demand from 47 to 46½ hours. As far as wages were concerned, the employers believed the amount of reduction was negotiable. The union negotiators believed the men were prepared to stand by the existing wage scale.

The British School at Rome.

The Faculties of Art of the British School at Rome have selected the following candidates to compete in the final competitions for the Rome Scholarships of 1923:—

Architecture: Isabel M. Chambers (Architectural Association), R. A. Cordingley (University of Manchester), E. Maxwell Fry (University of Liverpool), P. J. B. Harland (Architectural Association), E. H. H. Higham (University of Liverpool), C. G. C. Hyslop (Architectural Association), G. A. Jellicoe (Architectural Association), Cyril R. Knight (University of Liverpool), Geoffrey L. Owen (University of Liverpool), and Edwin Williams (University of Liverpool).

Decorative Painting: Constance E. E. Grant (Royal Academy Schools), Alfred K. Lawrence (Royal College of Art), Doris M. Stacey (Royal Academy Schools), and Hugh G. Stutfield (Slade School).

Sculpture: Frank P. Chambers (School of Architecture, University of Cambridge), Ernest Webb (School of Art, Nottingham), David Evans (Royal Academy Schools), A. Seaton White (Slade School).

Engraving: Frank C. Medworth (Westminster School of Art and Royal College of Art), W. Heber Thompson (Slade School and Royal College of Art), Elizabeth Fyfe (Slade School and Central School of Arts and Crafts), and Charles Murray (Glasgow School of Art).

The Trehearne-Norman Essay Prize.

The Society of Architects announces that the Trehearne-Norman Essay Prize (triennial; value £15) will be awarded this year by the Council of the Society for the best essay submitted on the following subject: "The Influence of High Buildings on Civic Development." Any British subject, male or female, is eligible to compete.

The Jury will consist of Sir Ambrose Poynter, Bart. (M), F.R.I.B.A., and L. S. Sullivan (F), A.R.I.B.A. The essay, which may be of any length between three and six thousand words, must reach the offices of the Society, 28 Bedford Square, W.C.1, not later than 12 noon on Tuesday, May 1, 1923. It must be typewritten on one side only of quarto paper, and must bear a small envelope attached to it containing the name and address of the competitor, and a declaration that the composition of the essay is entirely his own work. The essay should be written in sound and lucid English, and may be illustrated by means of diagrams in black-and-white. The prize-winning work, if of sufficient merit, will be published in "Architecture."

Trade Note.

Boyle's latest Patent "Air-Pump" Ventilators have been applied to the New Billiard Hall, Mold Road, Buckley. They were supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

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"A Beautiful World."

Under the above title the Scapa Society issues the last number of its occasional Journal. No society serves a more useful and necessary purpose than one which, like the Scapa, has for its object the prevention of disfigurement in town and country, for the evil which it seeks to prevent is everywhere. We should seek in vain for a remedy if advertising placards were a necessary adjunct of modern civilisation without which commercial progress and development were rendered difficult or impossible; but no one is in a position to show that the displayed advertisement is necessary for the purpose of any trade or enterprise. All that can be urged is that, so long as it is possible to display advertisements in prominent positions, the rivalry of commercial firms renders it unwise for one firm to remain unrepresented while its rival shouts to the passing pedestrian or railway traveller. If one firm of mustard makers advertises, its rival cannot afford not to, and this though both may regret the money which has to be spent in making the world hideous. The remedy is prohibition or taxation, or a combination of both, and the evil can only be dealt with by local authorities administering legal powers given to them.

The Scapa Society has been useful and active since its foundation in 1893, and Mr. Alfred Waterhouse acted as one of its first presidents, the title of its Journal being one of his suggestions. In an Act which was adopted by Parliament in 1907 useful provisions were inserted regulating hoardings over 12 feet in height, and since that time other Bills have been introduced to carry into effect the objects of the Society. The Lake district in three counties is now protected by a useful series of bye-laws, and 39 county councils have adopted bye-laws to regulate and control advertisements within their areas. The terms of the Hampshire bye-law are:—

"No advertisement shall be exhibited on any hoarding, stand, or other erection visible from any public highway (whether cariageway, bridleway, or footway) and so placed as to disfigure the natural beauty of the landscape."

In Montgomeryshire only advertisements the lettering of which does not exceed 6 inches in height are exempted from the scope of the bye-laws adopted.

In the urban districts progress has been less marked, but nearly 60 boroughs have passed bye-laws. The London County Council adopted bye-laws in 1914 which have received the sanction of the Home Office, though certain clauses were struck out in committee, not from any objection in principle, but because it was held that the powers sought should be vested in the boroughs rather than in the central authority.

The activities of the Scapa Society were checked by the War, and in their organ they ask for further support and assistance to enable them to prosecute their policy.

It is a matter of surprise that an organisation with an income and expenditure of less than £100 a year should have achieved such notable results, and we trust that the appeal made will be widely responded to.

Any one of our larger towns supplies an object-lesson of the need of the reform, for we may say without fear of contradiction that the architectural appearance of a great city like London would be more beneficially effected by the elimination of totally unnecessary advertisements than by the erection of fine buildings. It is more than possible that the displayed advertisement nuisance has an actual deteriorating effect on our architecture itself. It suggests to the trader the necessity of shouting the merits of what he sells, and, impelled by this impulse, he insists on his architect giving him a building that will in some marked manner attract attention, not by its merit, but by its outstanding singularity. Architects cannot be expected to be insensible to their environment, and must often feel the expressed or implied wish of their clients that they are wanted to produce striking buildings—that is, buildings which are primarily advertisements rather than the natural expression of legitimate requirements. We often see the natural expression of requirements—the well detailed window or door starved in order to cover the cost of a totally unnecessary dome, turret, or gable in itself a painful travesty of some greater structure when these features were legitimate and had meaning. If we could have London cleared of its sky-signs, the lettering across the fronts of its buildings, its staring shop facias and hanging signs controlled and ordered, no one except a few tradesmen who are employed in manufacturing eyesores would be the poorer, and many a shopkeeper would save money. More than this, we should regain some of the decency brought home to us by the contemplation of an eighteenth-century engraving of our streets, and we should be better able to appreciate the merit of the best of both present and past work. If the evil is not taken in hand at an early date and dealt with drastically, owners will begin to regard buildings as mere frameworks on which to hang or affix advertisements.

We believe that the institution of heavy taxation on all signs and advertisements displayed externally would do more than anything else to do away with the evil, as there is no doubt that such taxes would be collected, and once such taxation was introduced public opinion would be in favour of increasing the taxes levied, until in the end we should be rid of one of the most vulgar and depressing abuses from which we suffer.

The effect of a system of taxation is demonstrated in France, and most of us will admit the general improvement thereby effected which shows itself in a reduction of size. Although the improvement of design in posters is very desirable and a poster may in itself be a work of art, we would prefer its room rather than its presence in our streets and public places.

Our Illustrations.

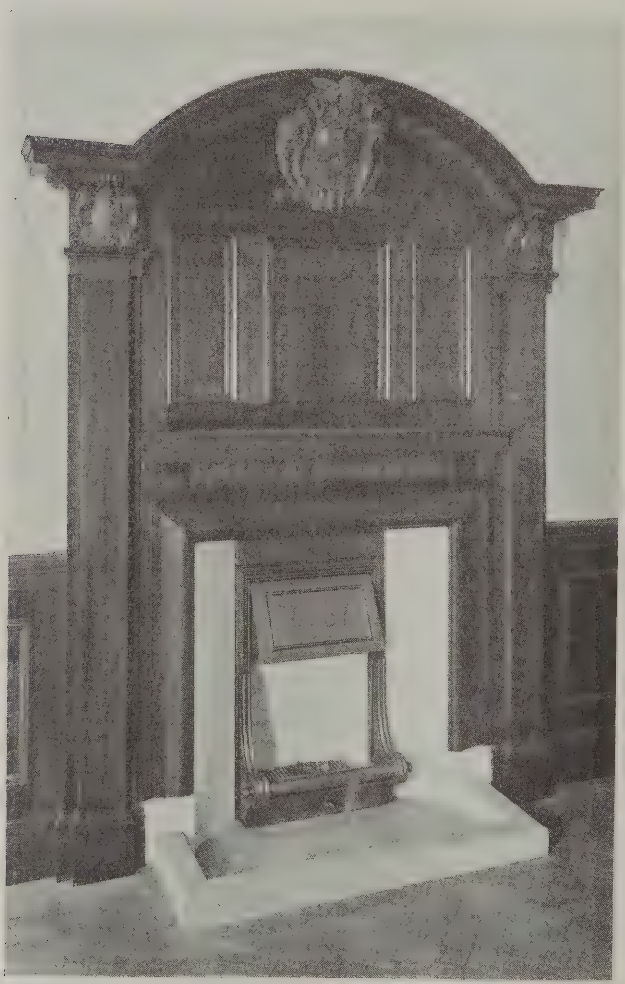
HOUSING SCHEME FOR THE MARYLEBONE BOROUGH COUNCIL.

H. V. Ashley and Winton Newman, Architects.

LLOYDS BANK, KING WILLIAM STREET.

Messrs. Campbell Jones, Son & Smithers, Architects.

This building, together with others recently erected in the immediate vicinity, will completely alter the aspect of an important section of London, and the plans indicate the very complicated nature of the problem of lighting which had to be solved by the formation of areas within the limits of the site. The problem was also complicated by the fact that the definite areas were already allocated under agreements made. The difficulty, of efficient lighting, the most crucial requirement in a City block, has been very successfully met by the architects, Messrs. Campbell Jones, Son & Smithers, whose building forms the northern centre of the vista from London Bridge.



OVERMANTEL AND GRATE IN DIRECTORS' DINING ROOM, LLOYDS BANK, KING WILLIAM STREET, E.C.
Carving by W. Aumonier & Son.

The contractors or builders were Messrs. Trollope & Colls, Ltd., 5, Coleman Street, E.C.2., who were also responsible for the concrete construction, fire escapes, fireproof construction, joinery, and Portland stone work.

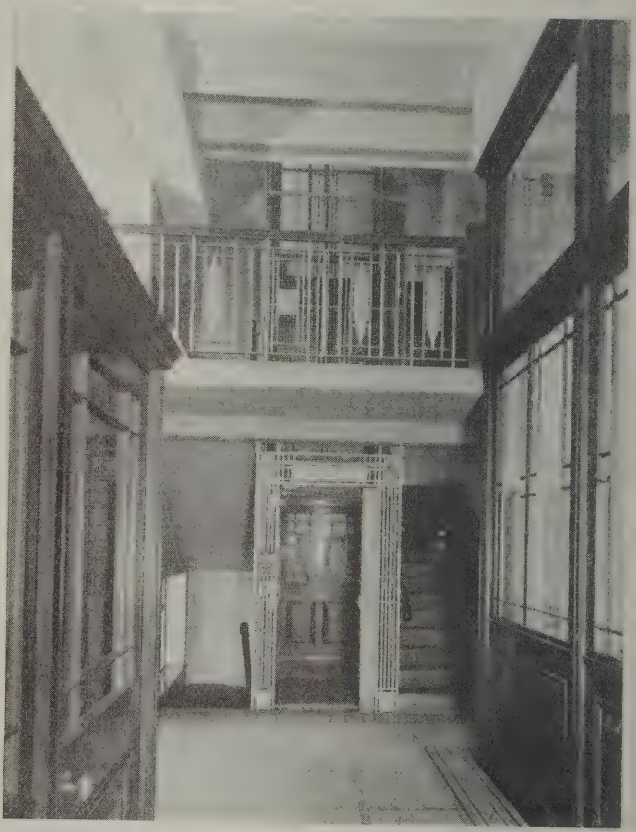
The casements were supplied by Messrs. John Gibbs, Ltd., Grange Road, King's Heath, Birmingham, and the Crittall Manufacturing Co., Ltd., Braintree. Door and window furniture, and general ironmongery by W. & R. Leggott, Ltd., 90, 91 High Holborn, W.C.1. Messrs. Belshaw & Co., 75 Victoria Street, S.W., carried out the electric light wiring and supplied the fittings. Messrs. Wheeler & Sons, 1a Victoria Gardens, Notting Hill Gate, W.11, heating and ventilation. The artesian well and pumping plant were installed by Messrs. C. Isler & Co., Ltd., Bear Lane, Southwark Street, S.E.1. The lifts were supplied by Messrs. Smith, Major & Stevens, Ltd., Abbey Works, Northampton. The marble and mosaic work by the Art Pavements & Decorations, Ltd., 130 St. Paul's Road, Camden Town, N.W.1, and the ornamental and decorative plaster work by Messrs. H. H. Martyn & Co., Cheltenham. Safes and strong rooms by Messrs. Chubb & Son's Lock & Safe Co., Ltd. The steel lockers were supplied by Messrs. G. Wright (London), Ltd. Messrs. Henry Hope & Sons, Ltd., Birmingham, supplied the cooking plant. The sanitary fittings were executed by Messrs. Doulton & Co., Ltd. The whole of the stone carving including caps, trophy panels and doorways, as well as all the wood carving, was carried out by Messrs. William Aumonier & Son. The board room grate, executed in Greek Cippollino marble and bright steel, as well as all other grates throughout the building, were supplied by O'Brien Thomas & Co., London.

ANGLO-EGYPTIAN BANK.

Messrs. Campbell Jones, Son & Smithers, Architects.

The contractors were Messrs. Holland & Hannen & Cubitts, Ltd., 258 Gray's Inn Road, W.C.1, who were also responsible for the fireproof construction, joinery, and Portland stone work.

Messrs. William Morris & Co., Ltd., 60–66 Rochester Row, S.W.1, supplied all the casements. The constructional steel was carried out by Messrs. Redpath Brown & Co., Ltd. The heating and ventilation and hot water supply was planned and arranged by Messrs. Young Austen & Young, 8 Buckingham Street, W.C.2. The marble mosaic floors in the general offices and throughout the building were laid by the Marble Mosaic Co., Linmos House, Charles Street, St. James, Bristol. The ornamental metal work, and lift enclosures, were executed by Messrs. Caston & Co., Ltd., and the decorative plaster work was by Messrs. Jackson & Sons, Ltd., 49 Rathbone Place, W.1. Safes and strong rooms by Messrs. Chubb & Sons, Lock & Safe Co., Ltd. The electric light fittings and wiring was carried out by Messrs. V. G. Middleton & Co., Ltd., 9 Carteret Street, S.W.1. Messrs. John Hall & Sons, Ltd., 173 Pancras Road, executed the glazing throughout the building. The fire escapes were supplied by Messrs. Haywards, Ltd., and the paint and distemper by Messrs. Aspinalls Enamel, Ltd. The whole of the stone carving was executed by W. Aumonier & Son, 84 Charlotte Street, Fitzroy Square, W.1, and all the grates were supplied by Messrs. O'Brien Thomas & Co., 17 Upper Thames Street, E.C.4.



THE ANGLO-EGYPTIAN BANK, INTERIOR VIEW.
Messrs. Campbell Jones, Son and Smithers,
Architects.

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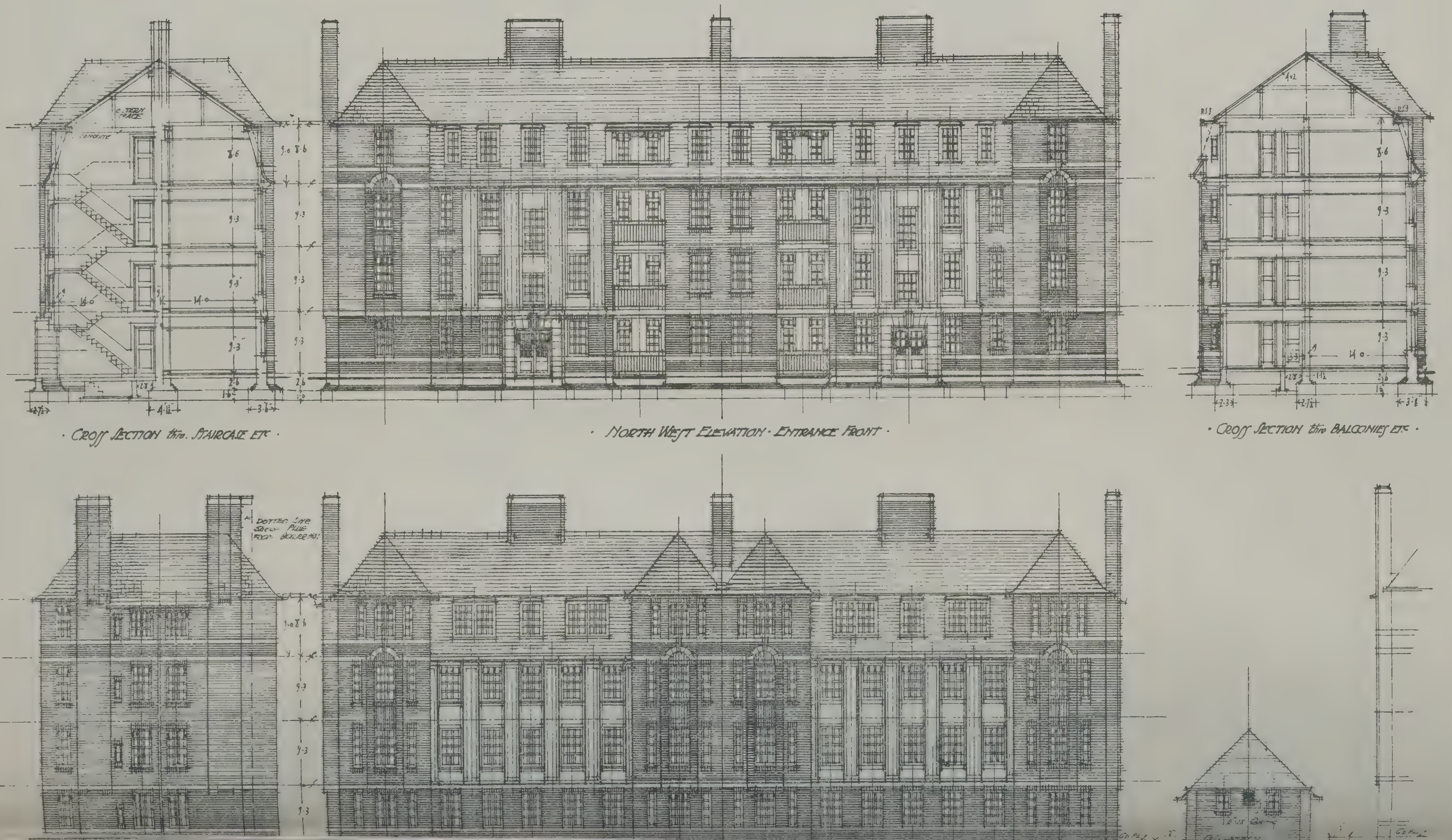
· BOROUGH of S^T MARYLEBONE· HOUSING SCHEME ·

· FISHERTON STREET SITE ·



· CROSS SECTION thro. STAIRCASE ETC ·

· NORTH WEST ELEVATION · ENTRANCE FRONT ·

· CROSS SECTION thro BALCONIES ETC ·

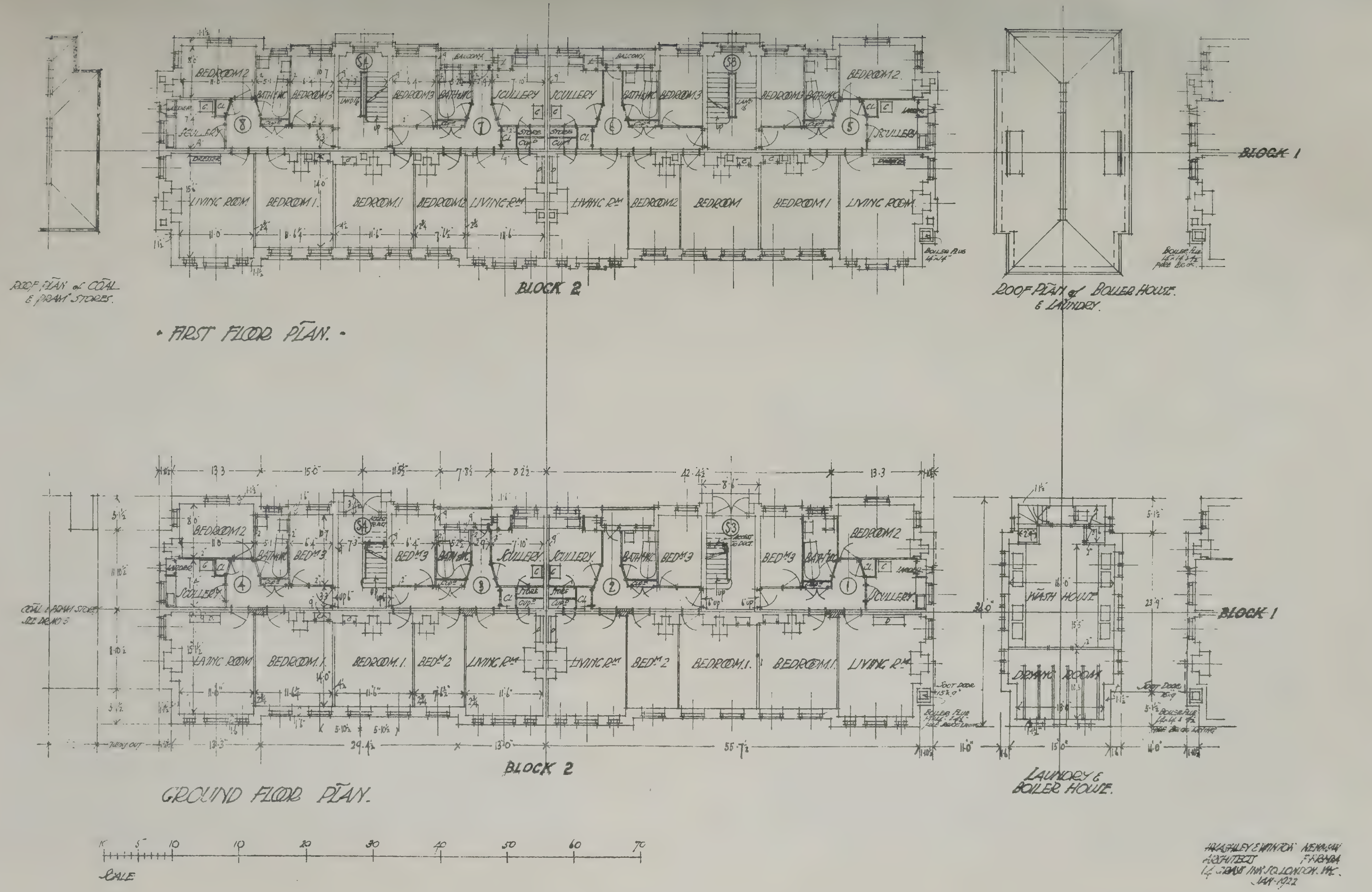
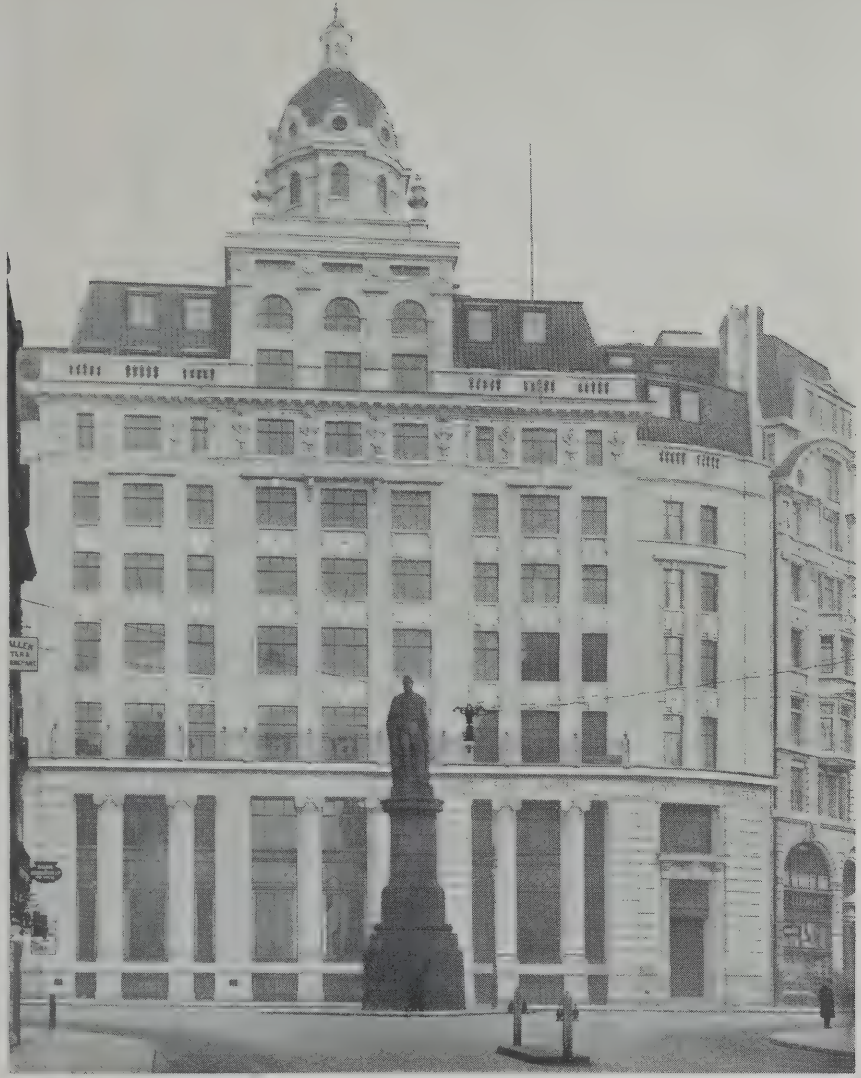


PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W 1

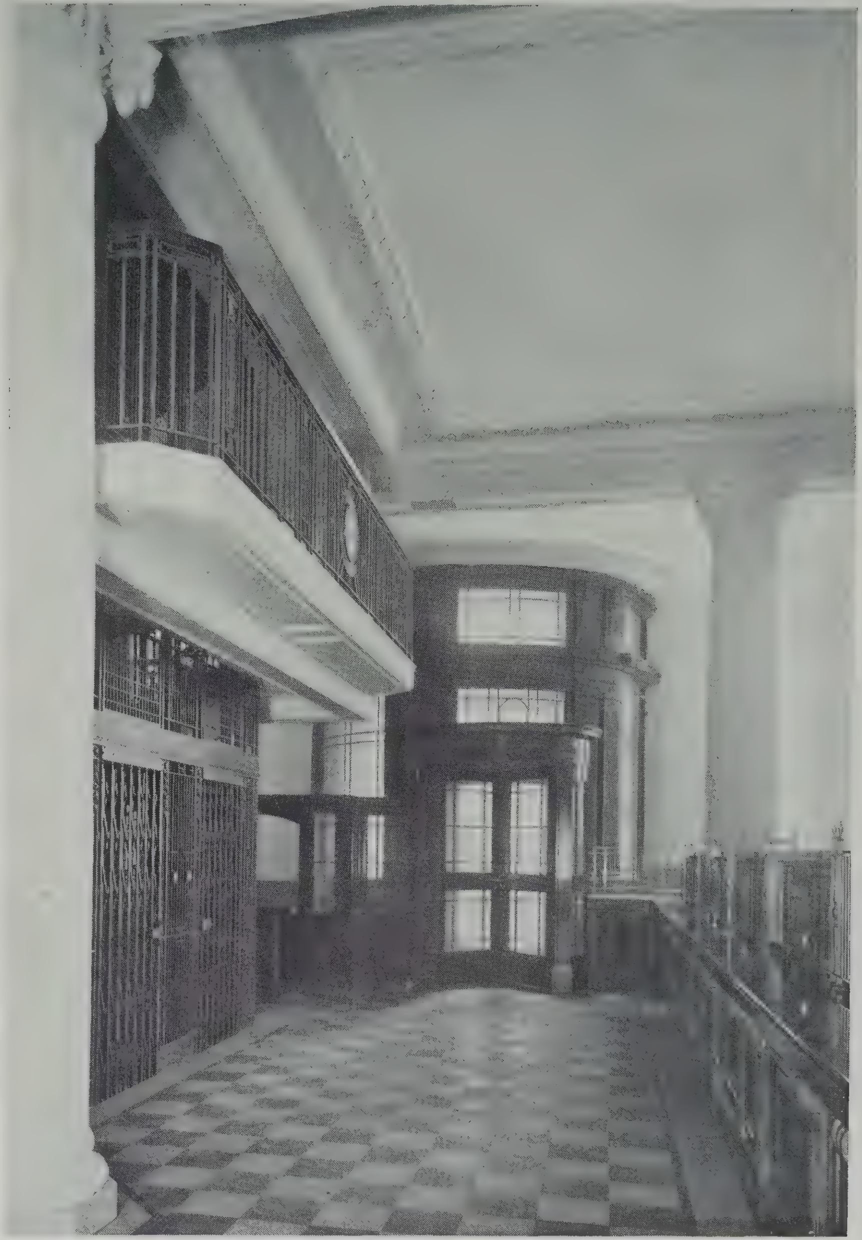
BOROUGH OF ST. MARYLEBONE HOUSING SCHEME, FISHERTON STREET SITE.

H. V. ASHLEY & NEWMAN, ARCHITECTS.



PHOTOS · SYDNEY NEWBERY

MAIN FAÇADE

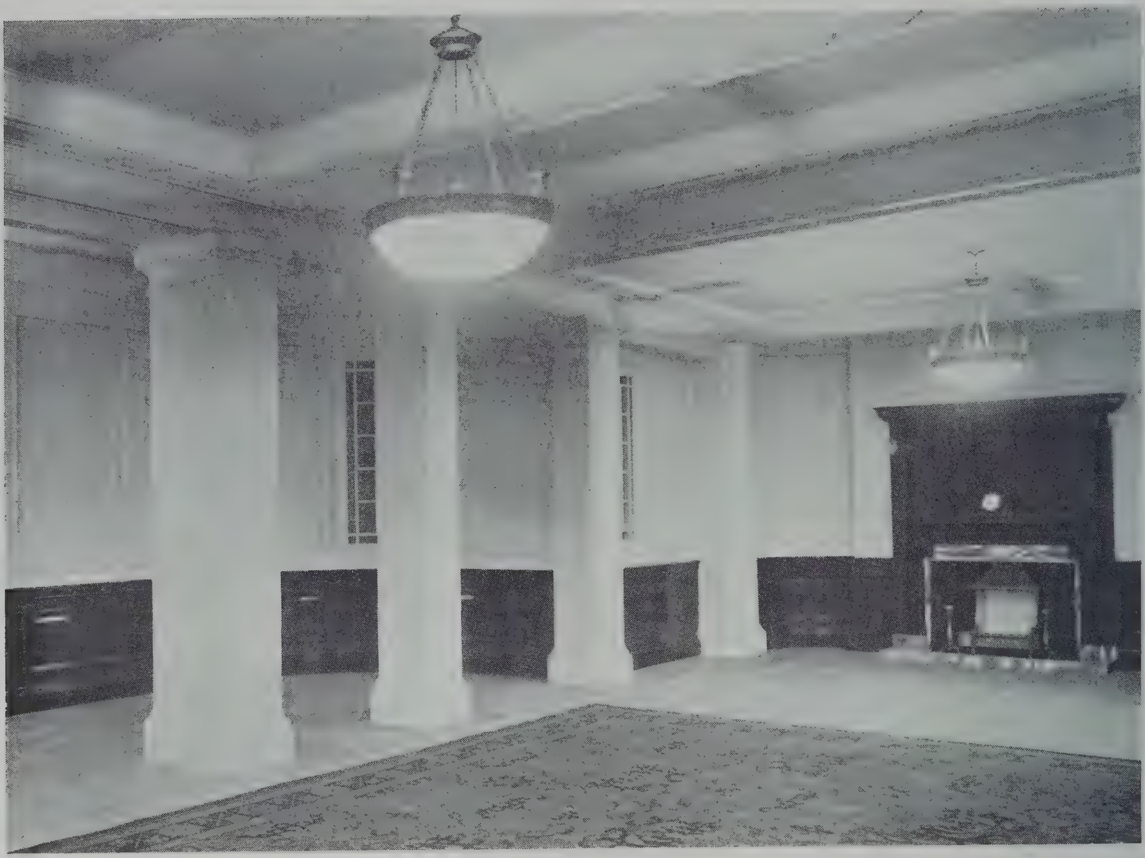


GENERAL OFFICE LOOKING TOWARDS ENTRANCE.

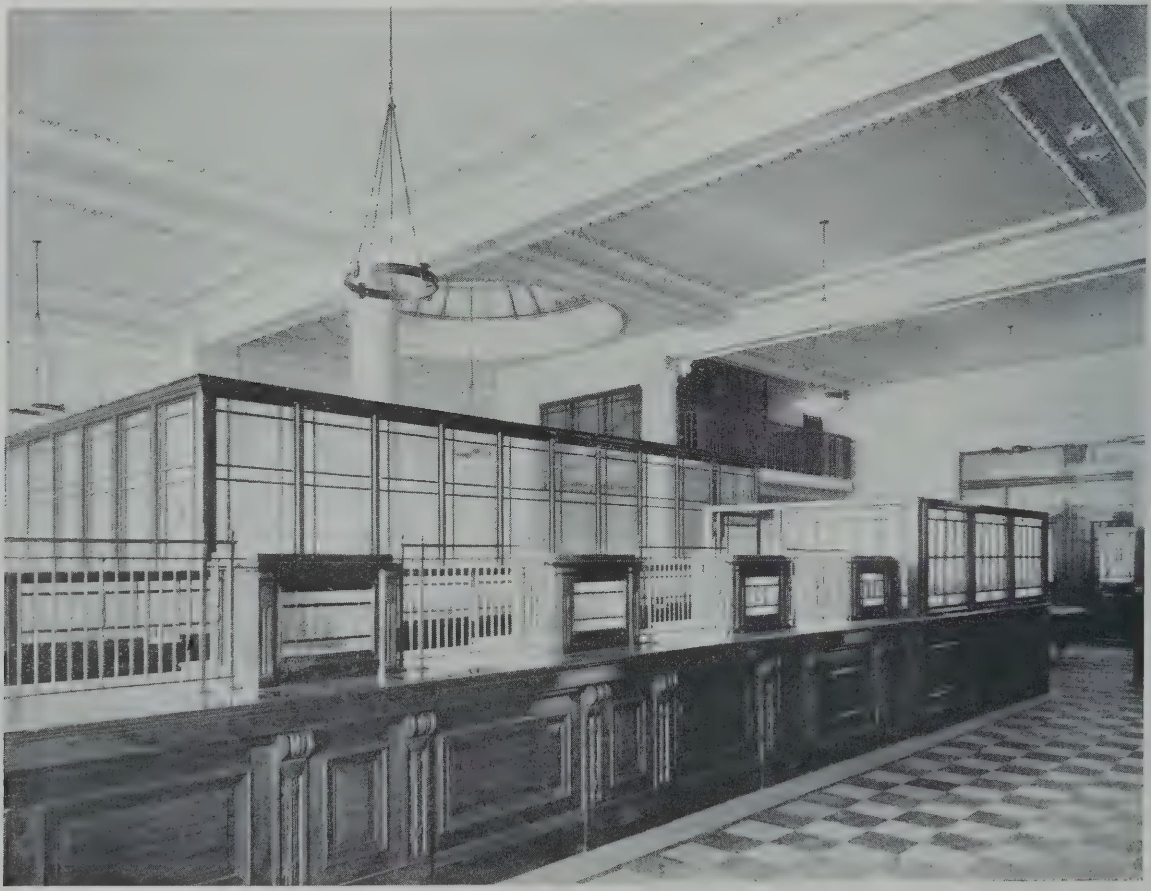
LLOYDS BANK LIMITED. KING WILLIAM STREET, LONDON, E.C.

CAMPBELL JONES, SON & SMITHERS, Architects.

H. L. ANDERSON, Architect for the Guardian Assurance.



THE BOARD ROOM.

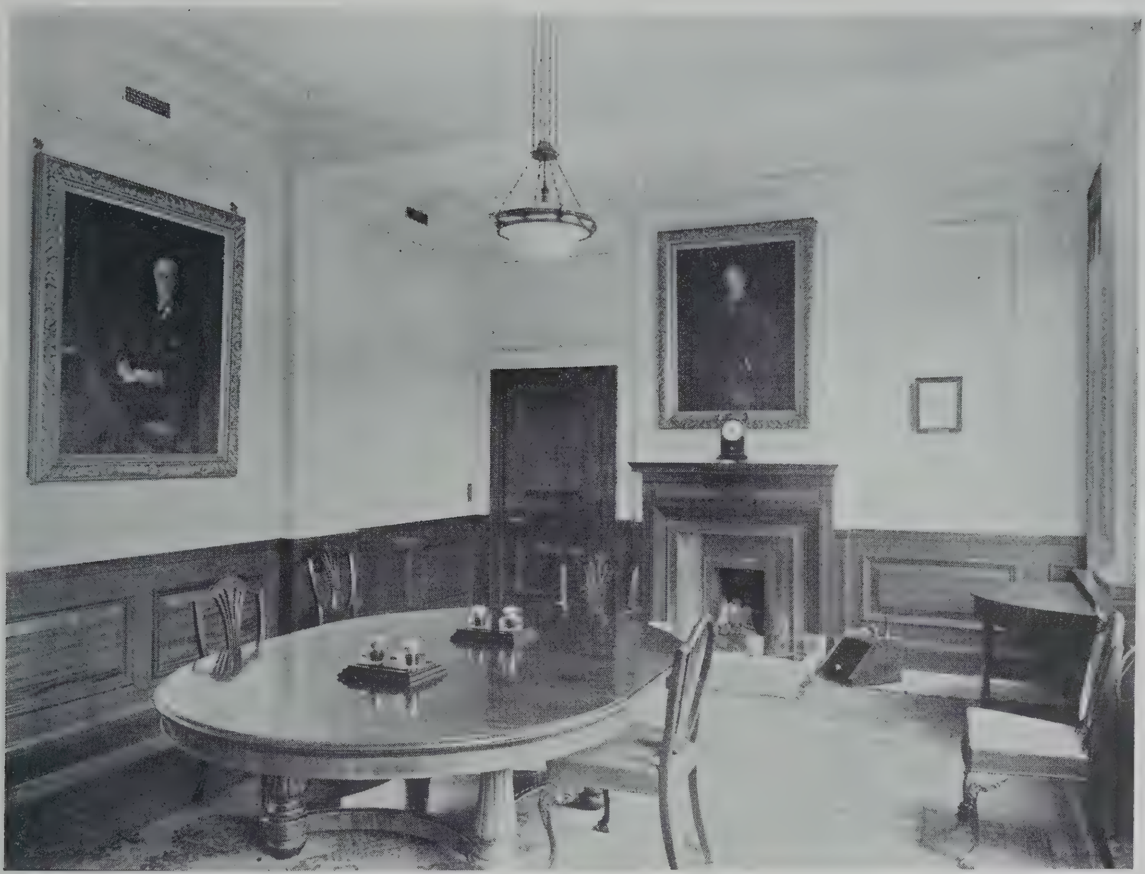


PHOTOS: SYDNEY NEWBERY.

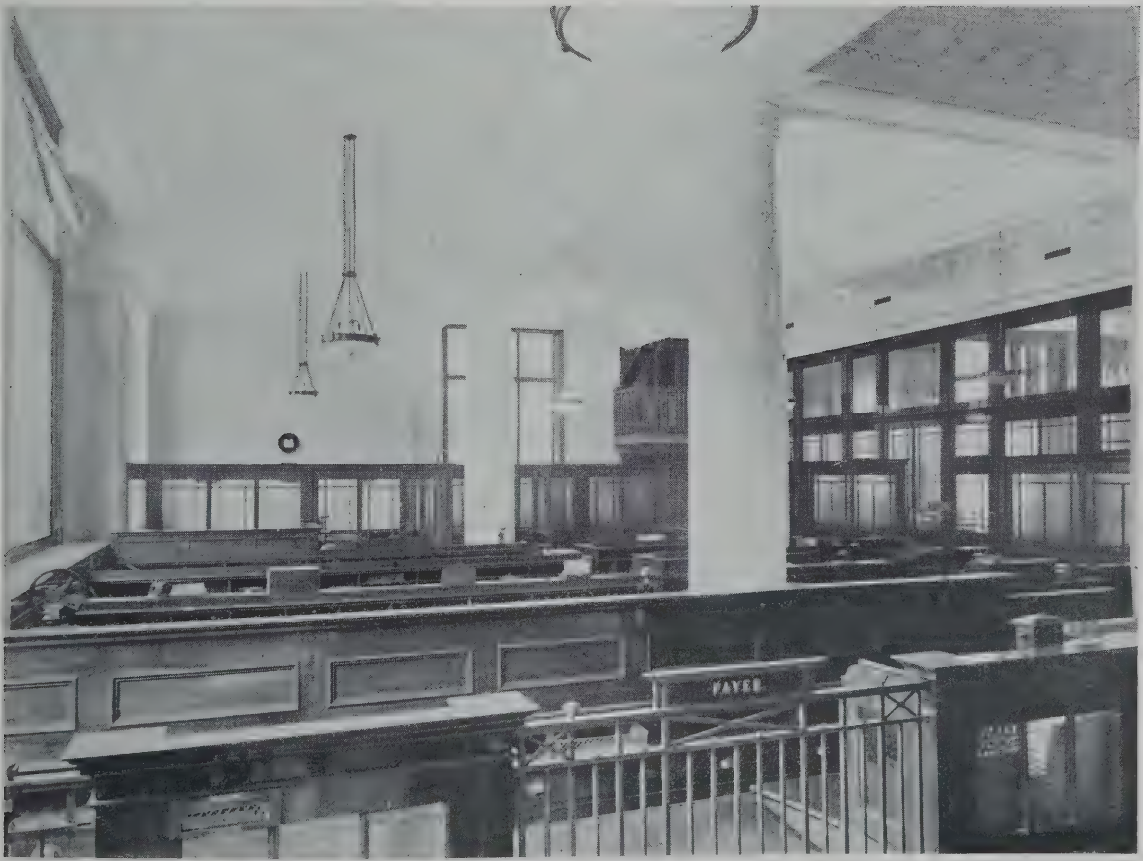
GENERAL OFFICE.

LLOYDS BANK LIMITED, KING WILLIAM STREET, LONDON, E.C.

CAMPBELL JONES, SON & SMITHERS ARCHITECTS.



THE BOARD ROOM.



PHOTOS: SYDNEY NEWBERY.

GENERAL OFFICE.

THE ANGLO-EGYPTIAN BANK, LIMITED, KING WILLIAM STREET, LONDON, E.C.

CAMPBELL JONES, SON & SMITHERS, ARCHITECTS.

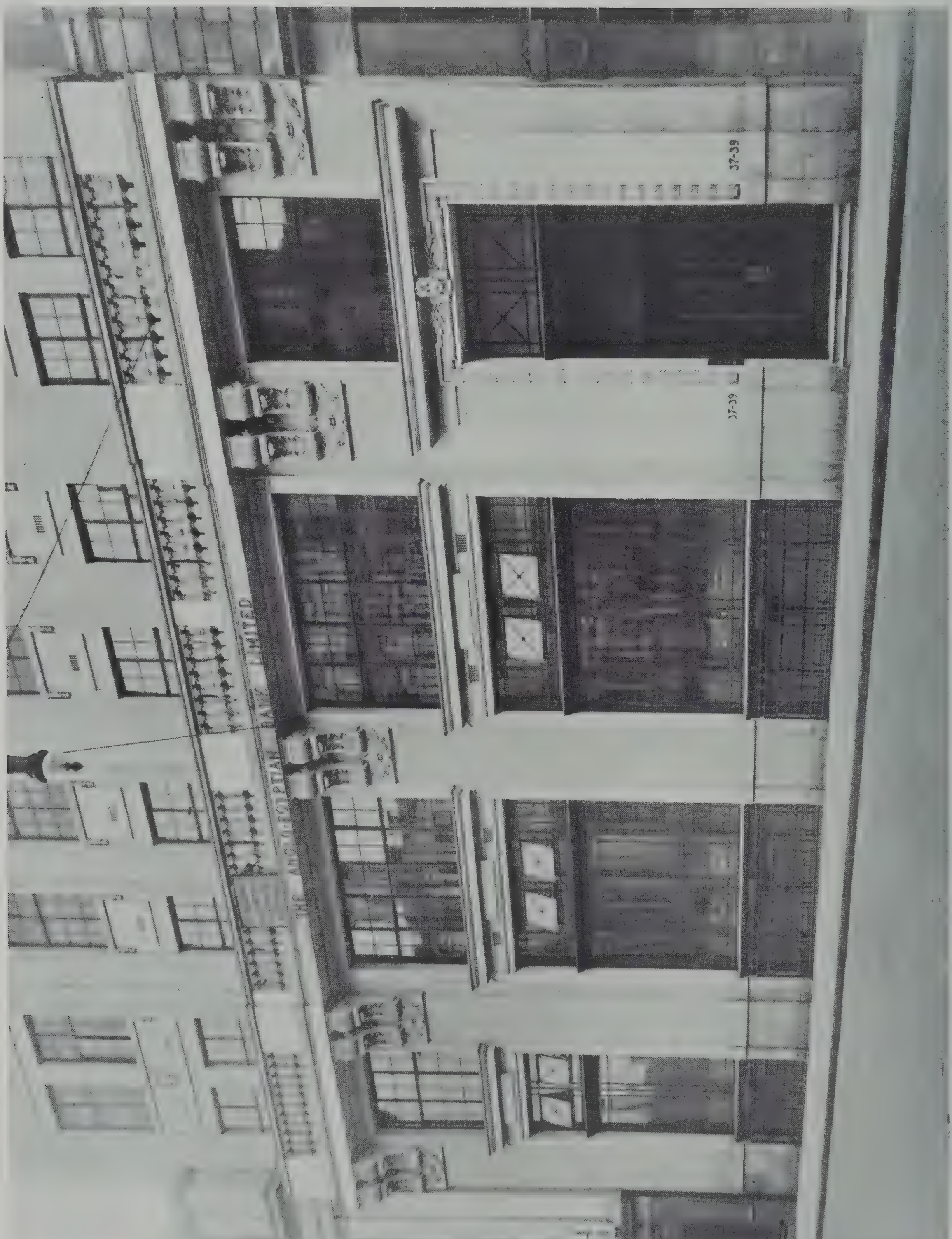


PHOTO: SYDNEY NEWBERY.

EXTERIOR DETAIL OF MAIN FAÇADE.

THE ANGLO-EGYPTIAN BANK, LIMITED, KING WILLIAM STREET, LONDON E.C.

CAMPBELL JONES, SON & SMITHERS, ARCHITECTS.

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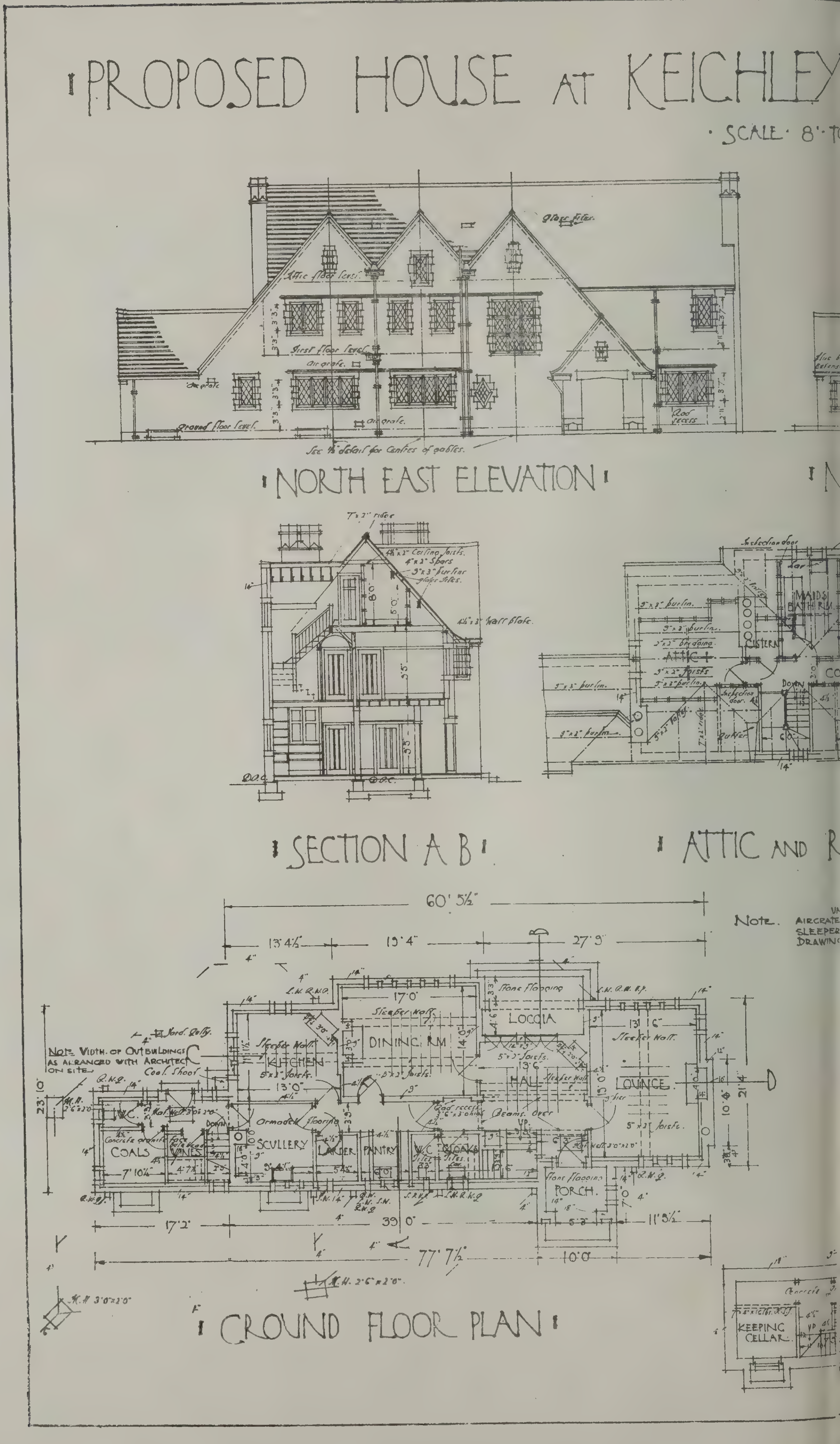
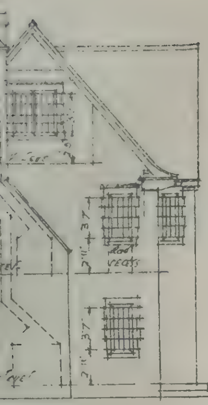

PROPOSED HOUSE AT KEICHLEY
· SCALE · 8' · T
Glaze tiles.
Attic floor level.
First floor level.
Air grate.
Ground floor level.
Rad recess
See ½" details for centres of gables.
NORTH EAST ELEVATION
7"x 2" ridge
4½"x 2" Ceiling joists.
4"x 2" Spars
9"x 3" purlin for glaze tiles.
4½"x 3" wall plate.
D.O.C.
SECTION A B
Inspection door
MAIDS BATH RM.
CISTERN
ATTIC
9"x 3" purlin.
5"x 3" bridging.
5"x 3" joists
Gutter
DOWN
ATTIC AND R
Note.
AIRGRATE
SLEEPER
DRAWIN
60' 5½"
13' 4½"
19' 4"
27' 9"
Stone flooring
LOGGIA
DINING RM.
17' 0"
Sleeper wall.
KITCHEN
13' 0"
HALL
13' 6"
LOUNGE
13' 6"
Beams over
Rad recess
Note Width of outbuildings as arranged with Architect on site.
Coal shoot
Yard gully
W.C.
COALS
VINES
SCULLERY
LARDER
PANTRY
W.C.
CLOAKS
Ornamental flooring
Stone flooring
PORCH.
7' 10½"
17' 2"
39' 0"
11' 3½"
77' 7½"
10' 0"
23' 10"
21' 4"
M.H. 3' 0" x 2' 0"
M.H. 2' 6" x 2' 0"
GROUND FLOOR PLAN
Concrete
KEEPING CELLAR.
UP

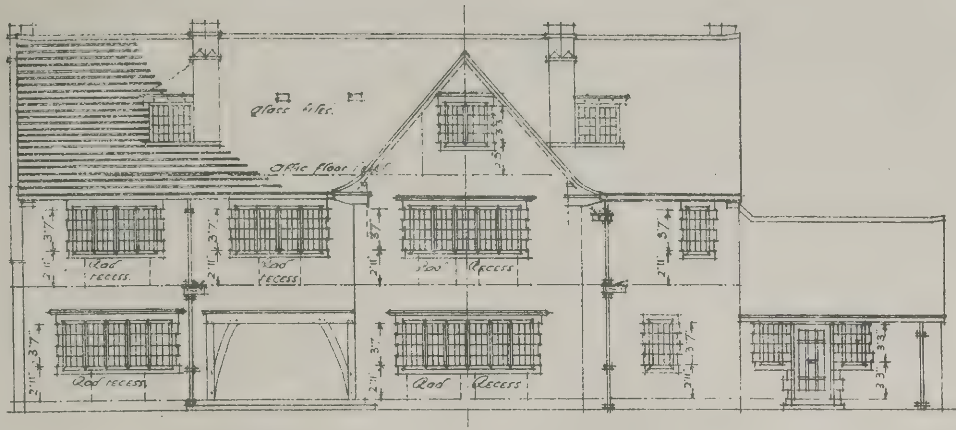
HOU
ARTHU

MRS LISTER MARRINER ׀

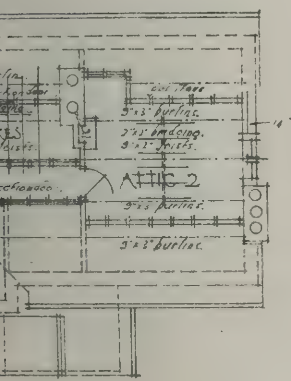
Nº 3.



EVATION ׀



׀ SOUTH WEST ELEVATION ׀



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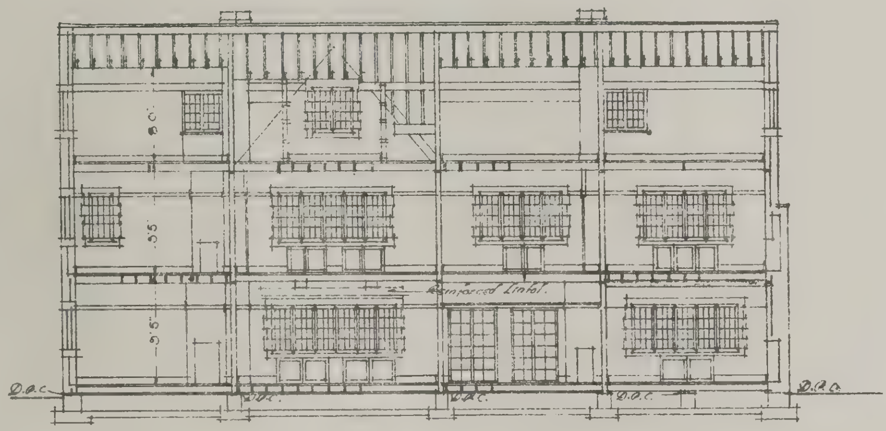
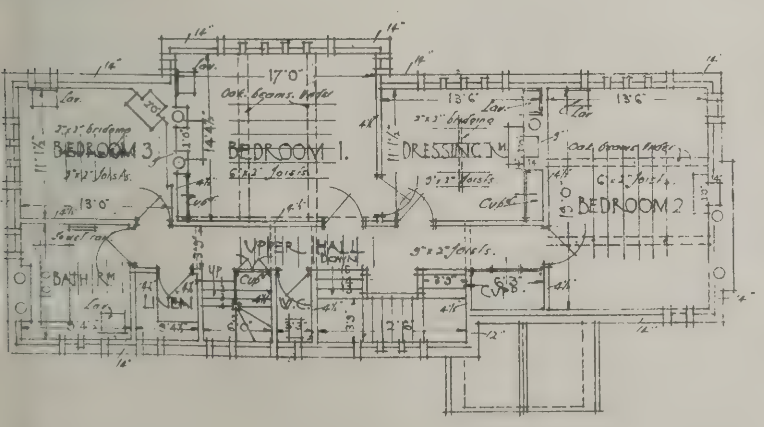
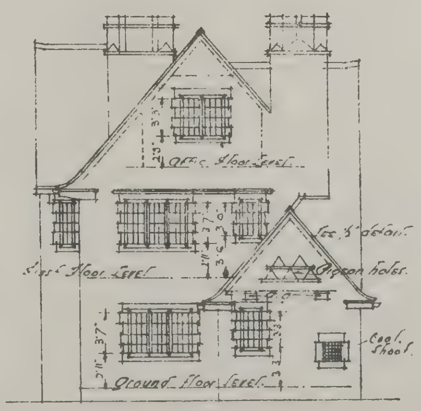


׀ SECTION C D ׀

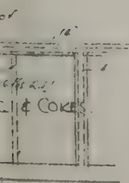
ON OPENINGS IN
N ON PREVIOUS



׀ FIRST FLOOR PLAN ׀



׀ S E ELEVATION ׀



׀ BASEMENT PLAN ׀

Arthur Nunweek Architect 87 Fargate Sheffield Oct 1921.

PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON, W.1

HLEY.

ARCHITECT.

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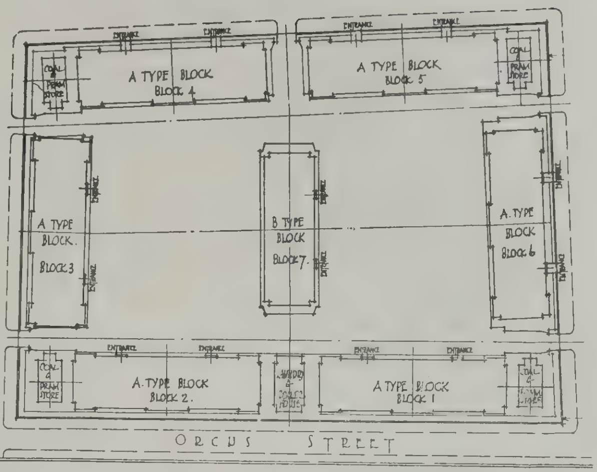
Our Illustrations—*continued.*

HOUSE AT KEIGHLEY, YORKS.

ARTHUR NUNWICK, Architect.

The interior woodwork of the principal rooms have been taken from old barns in the neighbourhood. The exterior walling is of Weldon stone, with Weldon stone mullions and dressings. The entire house has just been completed, the general contractors being Messrs. H. V. Robinson, Ltd., Keighley. The metal casements were supplied by Messrs. Mellows, Ltd., Sheffield. The door furniture by Messrs. Alfred Brown & Co., Ltd., Birmingham. Central heating installation by Messrs. Bailey & Clapham, Keighley. Hot water supply and plumbing by T. Slater, Keighley. Messrs. Judson & Steel, Keighley, were responsible for the joinery. The leaded lights were supplied by William Morris & Co., 60–66 Rochester Row, S.W. The tiling and rubber floors are by the Art Pavements & Decorations, Ltd., London. Messrs. George Jackson & Sons, Ltd., carried out the decorative plaster work, and Messrs. Shanks were responsible for the sanitary arrangements.



MARYLEBONE BOROUGH COUNCIL'S HOUSING SCHEME.
Messrs. ASHLEY & NEWMAN, Architects.

Notes and Comments.

The Whitgift Hospital.

A deputation representing various interests and societies called upon Col. Ashley, the Parliamentary Secretary of the Ministry of Transport, to protest against the proposed demolition of the Whitgift Hospital. Col. Ashley stated that he was in entire sympathy with the general views put forward by the deputation, he agreed with the statements made by the deputation, and endorsed in general principle the views urged as to the importance of preserving national monuments. From the through traffic point of view there was no reason why the hospital should be sacrificed, as the Ministry were forming a bye-pass round Croydon which would be some hundreds of yards shorter than the road through the town, and this bye-pass would be open for traffic in the summer. But as the Ministry were finding no money in this case they had not a right of veto. This plain statement is one which the supporters of demolition will find it hard to answer, and should they have their way they will be left with no possible excuse for an act of vandalism which will be a stain on the records of Croydon which cannot be outlived.

The Furnishing Guild.

We are sorry to learn that the Furnishing Guild has had to cease operations because they cannot secure the very moderate sum of £2,000. The experiment was one with which we have every sympathy. Our shops all over the country are full of badly-made furniture of meretricious design, while the Guild's endeavour was to revive honest craftsmanship. They have been handicapped by their inability to purchase machinery and equip premises, but the want they tried to fill has been evidenced by the amount of work they were able to secure. It is more than a little extraordinary that the great Labour organisations which can find hundreds of thousands for purposes of prosecuting trade disputes should not come forward in support of one of the most interesting experiments of modern times, which, if successful, would allay labour unrest, while it involves the support of no principle that the most reactionary of politicians could object to. Labour throws away an opportunity of proving itself when it withholds support it is within its power to give to so useful a movement.

Wage Reductions in the Building Trade.

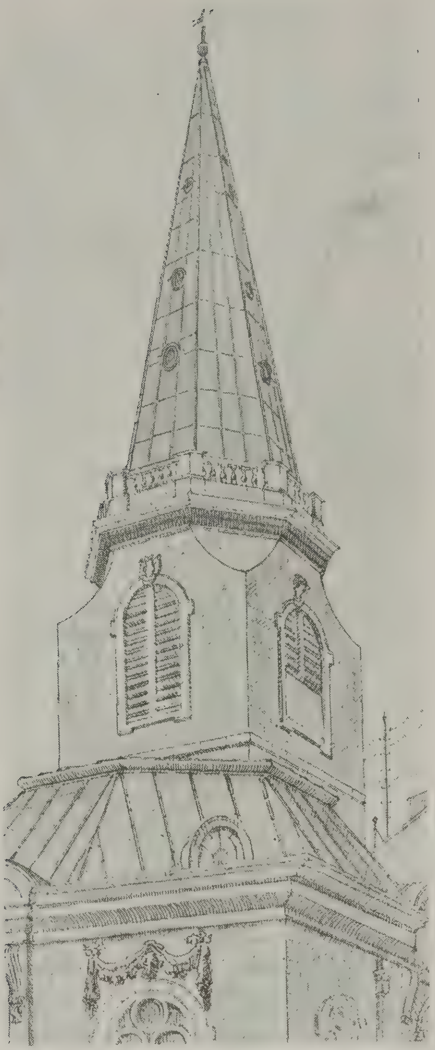
Mr. G. B. Hunter writes to "The Times" urging that nothing will do more to help the country out of its present deep depression than a reduction in the cost of building, and says that as wages now are 80 per cent. to 100 per cent. more than in 1914, the 20 per cent. reduction asked for is exceedingly moderate, especially as shipwrights have accepted reductions of 40 per cent. At the same time many contractors we have talked to believe that wages in the building trade cannot be reasonably reduced in view of the great increase in the cost of living. More than this, doubts have been expressed to us whether wage reductions, which may transform willing into unwilling workers, will reduce the cost of building. A better remedy would probably be found in increasing output and lengthening hours, and it is in this direction, it seems to us, that a satisfactory compromise should be effected. In addition, a large element in the price of building is the cost of materials, and in this direction reductions should be possible.

The Architects' Benevolent Society.

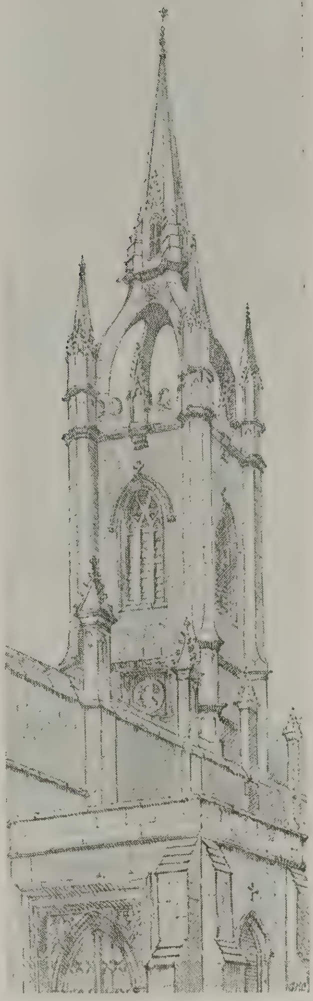
It is unnecessary to say that we wish the Architects' Benevolent Society every success, which they amply deserve for the efforts which they have made on behalf of the poorer and more unfortunate members of the profession. We therefore very willingly give a letter from them which explains their new insurance scheme. We do not much like it, but the profession may; and, if so, the Society will have proved itself to be in the right. But it seems to us that either an architect is insured or he is not, and either he is in a position to support the Society or he is not. If he is insured he is unlikely to take out another policy simply because certain commissions are divided between himself and the Society, commissions he would otherwise receive in full. It would be simpler and more direct if he insured his life in the ordinary way and contributed what he could afford to the Society. The whole process reminds us a little too much of the system by which money is sought for various purposes by means of bazaars. But the proof of the pudding is in the eating, and we wish the Society the best of good fortune in its venture.

The Remission of Rates.

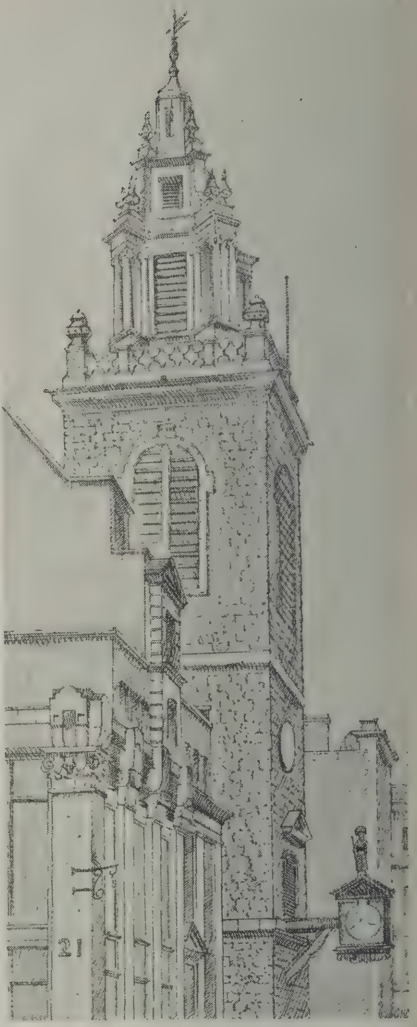
We are said to be taught by experience, but this is not always true. In the matter of Housing we have found by experience that State-aided Housing is a mistake, and that subsidies are ineffectual, but apparently we are going to adhere to the experiment—it is true to a modified extent. On the other hand, in New York, it has been found that the exemption of buildings from rating for a term of years led to immediate building activity; yet our authorities seem unwilling to try what has been a proved success elsewhere, preferring to adhere to methods which have proved ineffectual. We are, no doubt, hampered by the sins of our ancestors, and a former Administration has saddled the country with the Rent Restriction Act; but would it not be cheaper in the end to pay compensation to those landlords whose power of obtaining rents they could otherwise charge is interfered with than to let the Rent Restriction Act die a slow and lingering death? In the building trade it is felt that until all restriction on private enterprise is at an end there will be no general resumption of activity, for it is only those whose work is wanted by the people who are penalised while others can secure all the profit they may make from activities which do not serve any public purpose. Truly we live in a world of many contradictions!



ST. SWITHIN, CANNON STREET.



ST. DUNSTAN-IN-THE-EAST.



ST. JAMES, GARLICKHYTHE.

Wren Commemoration Banquet.

A commemoration banquet was held on Monday, the 26th ult., by the Royal Institute of British Architects, at the Hotel Victoria, Northumberland Avenue, S.W., with the President, Mr. Paul Waterhouse, in the chair.

The company included :—The Archbishop of Canterbury, the Earl of Balfour, M. de Saint-Maurice (Member of Council of the Société des Architectes Diplômés par le Gouvernement), the Earl of Crawford and Balcarres, Lord Askwith, the Lord Mayor of London and the Sheriffs, Sir Donald MacAlister (President of the General Medical Council), Sir L. A. Selby-Bigge, Sir W. Hale-White (President of the Royal Society of Medicine), Sir A. S. Cope, Sir W. Arbuthnot Lane, Sir A. Bowlby (President of the Royal College of Surgeons), Sir Aston Webb, C.B., K.C.V.O., P.R.A., Sir Cecil Harcourt Smith, Sir Reginald Blomfield, R.A., Litt.D., Professor Sir Arthur Schuster, Sir David Murray, R.A., Sir Charles Oman, M.P., Sir John Burnet, Sir John MacAlister, Sir E. Hodder Williams, Dean Inge, M. Augustin Rey (Société Centrale des Architectes Français), Canon S. A. Alexander, Mr. F. R. Anderton (Chairman of the L.C.C.), Mr. W. H. Nicholls (President, National Federation of Building Trades' Employers), Sir Lawrence Weaver, Mr. A. W. S. Cross, Mr. C. Fitzroy Doll, Mr. J. Storrs (President, Institute of Builders), Mr. E. Fiander Etchells (President, Institution of Structural Engineers), Mr. H. V. Lanchester (President, Town Planning Institute), Sir Herbert Warren, K.C.V.O. (President of Magdalen College, Oxford), Mr. Edward P. Warren, F.S.A. (President, Berks, Bucks and Oxon Architectural Association), Mr. E. J. Partridge (President of the Society of Architects), Mr. A. F. Collins (Slough Society of Architects), Mr. T. Butler Wilson (Leeds and West Yorkshire Architectural Society), Major Hubert C. Corlette (New South Wales Institute of Architects), Mr. T. R. Milburn (President, Northern Architectural Association), Mr. G. J. Skipper (Norfolk and Norwich Association of Architects), Mr. Percy Thomas, O.B.E. (President, South Wales Institute of Architects), Mr. W. E. Riley, R.B.A. (The Official Architects' Association), Mr. J. Alfred Gotch, F.S.A. (President, Northamptonshire Association of Architects), Major C. B. Flockton (Sheffield Society of Architects), Mr. Harold S. Rogers, M.A. (Chairman of the Oxford Society of Architects), Mr. Rupert Savage (President, Birmingham Architectural Association), Mr. John Murrey (National Federation Building Trades Operatives, London District Council), Mr. H. Denston Funnell (Architects' and Surveyors' Assistants' Professional Union), Professor H. H. Turner (President, Royal Astronomical Society), Mr. S. Hurst Seager (New Zealand Institute of Architects), Mr. Francis Jones (President, Manchester Society of Architects), Mr. Stanley Hamp (President Architectural Association), Mr. Herbert A. Welch, Professor S. D. Adshead, Mr. L. Cope Cornford, Mr. Arthur Keen (Hon. Secretary), Mr. H. D. Serles-Wood, Mr. Charles H. Heathcote (Vice-President), Mr. H. V. Ashley, Mr. Wm. Woodward, Mr. Herbert Baker, A.R.A., Sir Robert Lorimer, A.R.A., R.S.A., Mr. Walter Cave, Mr. H. M. Fletcher, Professor Beresford Pite and Mr. Ralph Knott.

After the Royal toasts had been honoured, Mr. Paul Waterhouse, the President, gave in an abbreviated form the following address :—

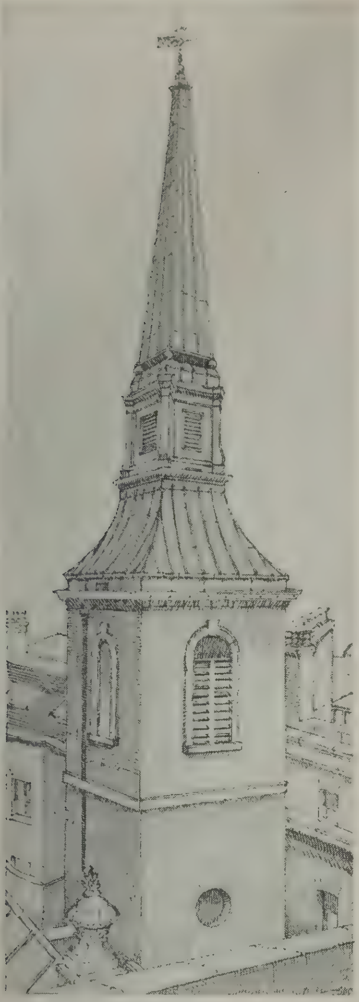
SOME OBSERVATIONS ON THE CHARACTER AND GENIUS OF SIR CHRISTOPHER WREN.

In the days of our great-grandfathers' grandparents, no longer ago and no less, there lived and died in this England of ours a man so rich in the double birthright of aptitude and industry that he surpassed the level even of his cultured fellows in at least three directions. Each of these directions was in itself no simple path of knowledge.

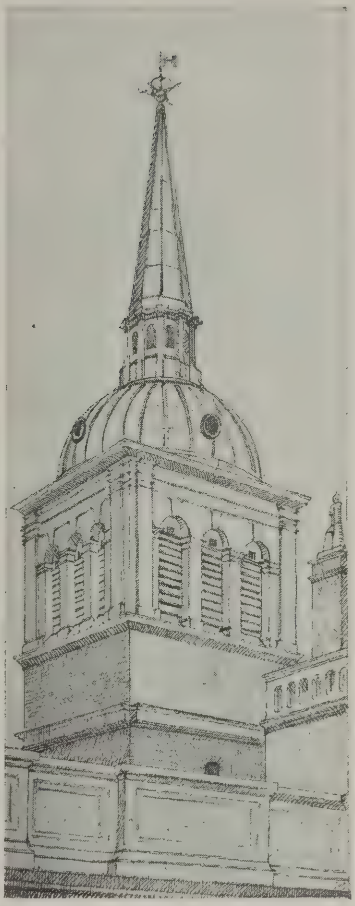
He was a man, moreover, blessed by the Heaven which had so endowed him with those three further gifts by which alone man can hope to win in battle against the limitations of time. He was granted not only longevity of mind—a treasure far greater than mere length of days—not only an early ripening which it would be irreverent and untrue to call precocity, but also, and above all, opportunity.

The three directions, or three roads of energy, were :—Classic knowledge—the humaner letters, science in the sense of universal physiology, and, for a crown of great glory, architecture.

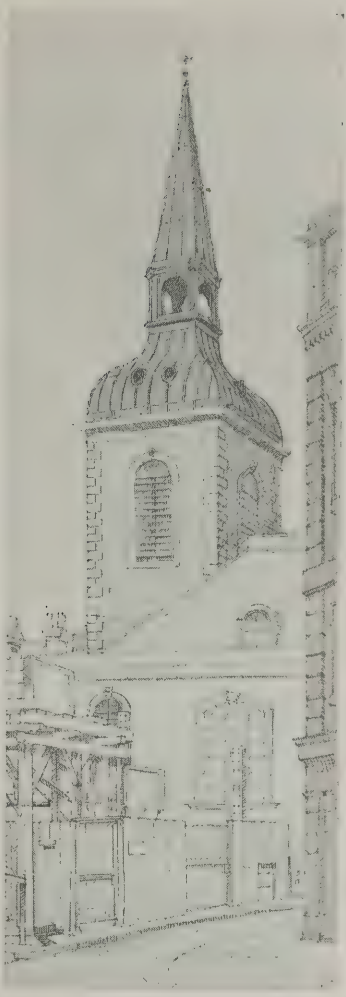
I suppose that no greater nor more humbling honour could fall to any man of my craft in my day than to be chosen, by what-



ST. MILDRED'S, BREAD STREET.



ST. PETER'S, CORNHILL.



ST. MARY ABCHURCH.

ever accidents of time and circumstance, to lead his brother craftsmen in an act of homage to the ever-flowering memory of that more than great man—Wren, Sir Christopher.

But in fact the honour has been added to, for our pilgrimage of architects, its numbers swollen by the thousands who were with us this afternoon in thought, if not in body, was graciously increased by the presence of distinguished men whose mission and desire it was to represent the great universities of Oxford and Cambridge, the Royal Society, and younger bodies, which, if they cannot claim to have been spectators of Wren's life and participators in his activities, at least offer their thanks and praise on lines of entirely kindred sympathy. Specially welcome was the spontaneous and almost impromptu representation of those trans-Atlantic brethren, the Architectural League of New York, between whose soul of art and ours no ocean rolls.

I have been driven by a logical process, as convincing as it is incorrect, to the conclusion that to-day's hero, the man whom to-day we celebrate, was just four times as great as the men to whom we normally ascribe greatness. I expose my process, for though I have discarded its chain of reasoning as vicious, I am entirely confident of the virtue of its result.

It begins by generously sacrificing one of the three domains into which I have partitioned the mental activities of Sir Christopher. I cast his brilliant and fascinating Latinity into the same scale as his architecture. Both, after all, are but the modes of an expression. The same study, the same play of brain which empowered him to master the syntax, etymology and orthography of architecture, give him the force to make his own the orders and elevational composition of Roman speech.

Against this I array his mastery of the universe of science, his pre-eminence as an astronomer, his acknowledged leadership in the realms of physics, mechanics, meteorology and chemistry.

In acknowledging these powers we find him to be not merely a man of two-sided knowledge—that, indeed, is rare enough—but of double superiority. He outran his companions on both courses.

We must go further. True as it is that no success in adventure exists without skill in discovery—or rather that creation does not thrive without nourishment—it is a fact known to all scientists and to most artists that successful and industrious research is not always accompanied by successful invention. Nor does archæology necessarily lead to art.

Here, however, was a man in whom the deepest powers of absorption went hand in hand with the brightest faculties of production.

Ex nihilo nihil fit, how true. But nothing, alas ! can come out of something, too. *Parturiunt montes*, well and good ; but, however, the answer to kind enquiries is simply *Mus*.

The mountains, for all the hidden ore that swells their depths of knowledge, have sometimes but a ridiculous monosyllable as their contribution to the world's progress.

Wren in his architecture and his science was a very Janus. One countenance faced the past with the sure smile of a conqueror : the other, Alexander-like, shot its glance of expected victory on the world of posterity. It matters not that his methods of learning in architecture were apparently miraculous, that no pen has recorded, perhaps no eye saw, his days of study ; the past was his sure captive, and we, the posterity towards which his keen old eyes were strained, are his happy captors too.

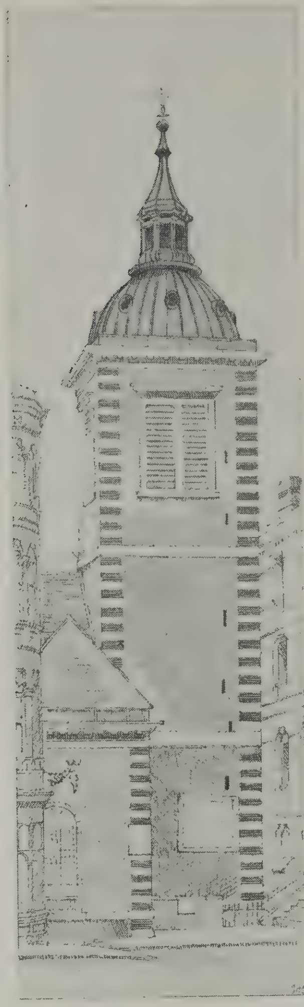
No need for me to interpret these metaphors into history, for indeed the history is before you all, and most of my hearers know it better than I do ; but it is clear, is it not, that no man's architecture was ever more truly based on acute knowledge of the language of the past—a Latin or Romance past if you will—and it is certain that only by profound study of the work of his predecessors in the worlds of scientific discovery could any natural philosopher have illuminated his age with such brilliant original and inventive work.

I judge, then, that had Wren, by loss of early maturity, loss of opportunity or by early death, so limited his energies that he could put forward one only of his four claims, he would have won his niche among the great if he had merely been an archæologist, an architect, an inventor or a man of research.

On these grounds I hail him as a fourfold champion. But, brother architects, there is another road to our conclusion ; and those of this distinguished company who have won their merited distinctions on other battlefields than ours will forgive us if for a few brief minutes we claim the whole gamut of Wren's " harp of diverse tones " as integral parts of his amazing victory-chant in architecture.

This may seem presumptuous on our part. That it should so

ST. NICHOLAS COLE ABBEY.



ST. BENET, PAUL'S WHARF.

ST. LAWRENCE JEWRY.

seem is contrary to reason. Believe me, my non-architectural friends, what we claim for architecture we do not, we dare not, claim for architects. No architect worthy of the name would ever deem himself wholly worthy. All of us know that the mountain we climb is a Parnassus with a cloud-capped brow. Its summit is beyond our eyesight, and the path thereto is at its highest untreadable.

Far be it from me to suggest that Wren's corn-sowing drill, his apparatus for producing fresh water at sea, his disinfectant fumigator, his barometer, his self-registering thermometer or his rain-gauge were necessary adjuncts to his output as an architect, though I have little doubt that his diplographic pen found a place on his specification desk, while his special level and his cure for smoky chimneys were definitely what we should hail as boons to the office.

But emphatically I do say that the mind which was so equipped as to be able to devise such things, and still more the mind that mastered those deeper mathematical, geometrical and astronomic themes which I do no more than mention here, was a mind which could make the highest flights of such a scientific brain ancillary to the mistress art of architecture.

Wren was a prince, an emperor, among constructors. Very few pocket-books of formulæ can have been of any use to him, for he was above and beyond them. We marvel at his daring, but it was a daring inspired and fortified by knowledge. The work he did—even if it be proved by other speakers to-night that he was over-bold—was not the work of foolhardiness, but of hardiness in scientific bravery. And it is certain that we are wrong in attributing merely to the skill of his undoubtedly skilful operatives the marvellous success of his genius in surmounting difficulties of gravitation, durability and span.

In the presence of certain notable scholars may I venture to come back for a moment to my association of Wren's Latinity with his architecture. We are a generation, probably the last generation in this country, of which some can remember the writing of Latin verse. There are some here who can recall that performance with pleasure, and they will remember how very close as an exercise of the brain that pursuit lies to the practice of architecture on traditional or classical lines.

There is necessary for its performance a good knowledge of the medium and a reasonably full vocabulary. These are acquisitions which a young schoolboy seldom has in generous measure. The Inges, the Ronald Knoxes, the Pembers are rare.

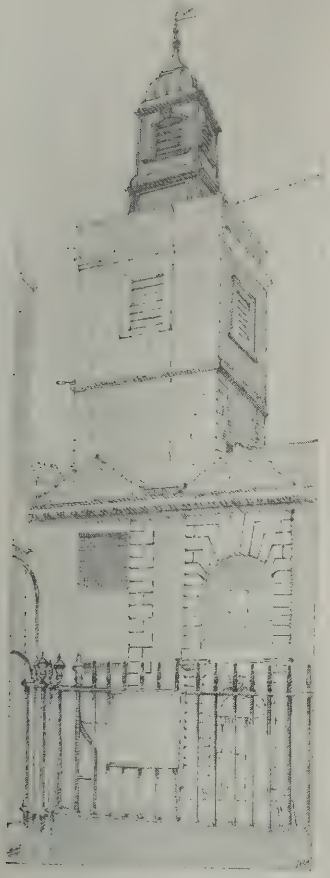
But given these—I may explain that they were not given to me—the game is a glorious game. There is an idea to be expressed, to be expressed if possible with dignity, and to be expressed, moreover, in symbols, counters, words of fixed significance and of fixed metrical value. Their disposition as sentences is governed by the strictest of rules. Moreover, though there is generally an umpire at hand, no rule of this game can be bent to suit the writer's difficulties, for the committee that framed them was dead and buried in or about the year zero A.D. A solecism is the writer's bankruptcy, a false quantity or a false concord is his death.

I would not say that the rules of architecture are as harsh as that, for our language, ancient as it is, is a living tongue; and we can breathe into it such little changes of syntax, such little shiftings of accent, and (but very sparingly) such timid inventions of new words, or of new meanings for old words, as make the difference between a Shakespear and a Tennyson. But this small privilege of licence—a licence which must never quench the recognisable melody of the old and ever-aging tongue—can never obliterate the astonishing likeness between the literary and the architectural arts, both of which have to achieve their expression in the language of our forefathers.

That Wren should have been a good Latinist is, I admit, less remarkable than that he should have been a much more than good architect.

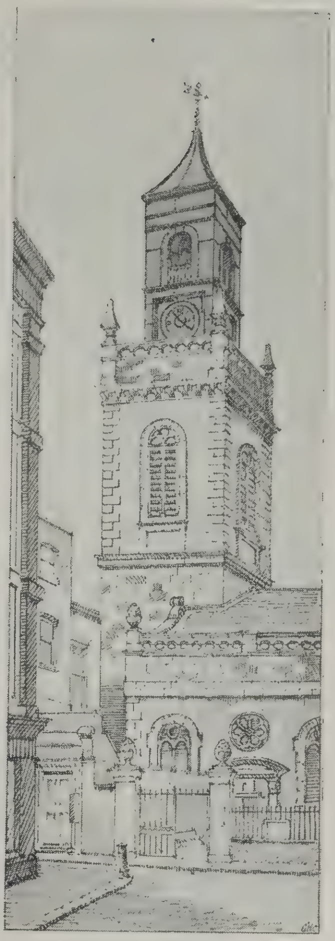
Dr. Busby, though but at the beginning of his long career, was no doubt already an expert with that instrument on which he became a world-famous soloist. In any case Westminster stood for good Latin, and young Christopher left, at the age of 14, with a Latin equipment far better than that of a good second year Oxonian of our day.

In architecture, it is true, Wren had personal advantages. His father, Dean though he was, and a very manifold incumbent, was no mean amateur in architecture, and no inconsiderable patron. A seeming paucity of first-rate professionals, and a very high level of knowledge in the standard of that acquaintance with architecture which was the adornment of many a non-professional connoisseur, made it comparatively easy for a gentleman of Wren's superlative culture to glide—almost to



ST. ANNE & ST. AGNES, GRESHAM STREET.

ST. MAGNUS, LONDON BRIDGE.



ST. MARY, ALDERMANBURY.

drift—into what we should call practice. And so, though Wren's earliest openings were surveyor-like in our limited sense of this word, it is scarcely with surprise that we find him embarking under his father's patronage on the Pembroke Chapel at Cambridge, and under that of his own University, the Sheldonian Theatre. Scarcely, again, with surprise do we find these two buildings to be, if tentative, at least scholarly. None, however, of these explanations will annul the marvel of so rich a maturity of architectural knowledge in a mind whose energies had been spent—one had thought absorbed—in the career of an accomplished leader of scientists and *literati*. Mark how at this stage that Providence which seemed ever ruling his destiny towards completeness came to his aid. The Plague sent him to Paris, no bad school of architecture, in almost divine preparation for that fuller life of architecture into which he was to be flung by fire. And if we admit here an intervention which seems superhuman, may we not acknowledge also that it was the Divinity which shaped his end that kept him from the realisation in stone of the warrant design for St. Paul's ?

And now, having praised his perfection, may I ask you to glory also in his imperfection ?

You will have experienced, if you are an acute student of architecture, one, two, or perhaps three disappointments in connection with Wren's work. There will be a building, or perhaps part of a building, which seems to you not indeed a blot on Wren's fame, but a slight dimness in his brightness. Your first thought on feeling the pain of this discovery will have been a very proper stab of self-reproof.

I am not sure that such an attitude is not the right one, for of Wren it may nearly be said that

> " The very errors of his master mind
> Were greater than the virtues of mankind."

But there is a happier way. Had any lesser mind than Wren's been forced to make performance follow so close on the heels of learning, what, think you, would have been the number of his trespasses ? And Wren, whose great knowledge was for ever getting greater, what think you was his judgment on the things that trouble you ? Depend upon it, brother architects, that grand old man in his latter days could have taken you round London and shown you in his own work more errors than ever you or I should find. So when we see these things, these very few, and pride ourselves, however regretfully, on the keenness of our critical vision, let us cast aside that pride and those regrets, let us leave our judgment unspoken among our fellows, and let us, without smothering our opinion—for opinions are always worth forming—let us keep the matter as a secret between ourselves and Wren. In such secrets held close with great minds of the past there is strange happiness.

I end with what I believe to be the thought of us all. We to-day pay reverent homage to a man so dowered with the gifts of genius and with the spirit of industry that his leadership in the field of natural science found no equal save in his supremacy as an architect ; one, moreover, whose culture in classic literature was balanced by a character so gentle and alluring as to win this outburst from a contemporary :—

" It was doubtful whether he was most to be commended for the divine felicity of his genius or for the sweet humanity of his disposition."

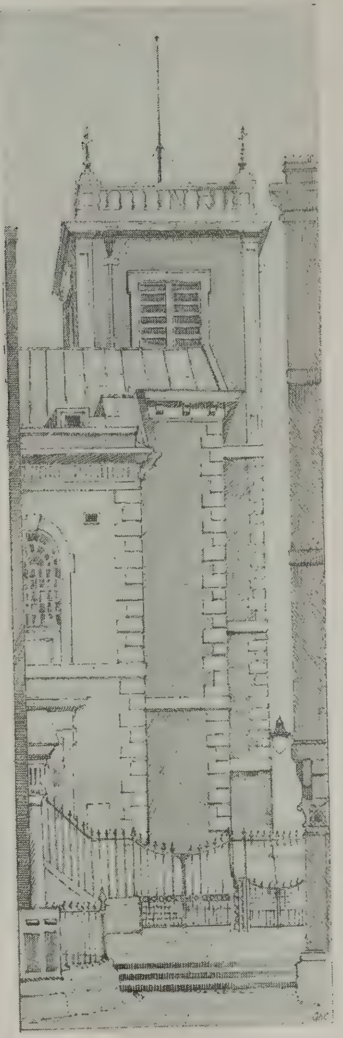
Sir Reginald Blomfield, R.A., Past President of the Royal Institute of British Architects, then read the following address :—

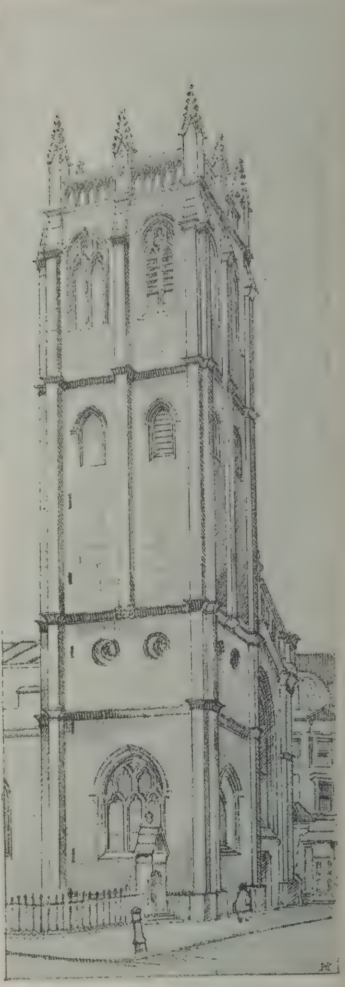
" WREN—THE ARTIST AND THE MAN."

I have been asked to make a few remarks on Wren ; and the first thing that occurs to me is the eccentric methods that have been adopted to celebrate the Bicentenary of his death. The Bishop of London, advised by one noble lord and urged on with some truculence by another, proposed to celebrate the occasion by demolishing some nineteen or twenty of Wren's City churches ; thus reversing the Hebrew custom of first stoning your prophet and then building a shrine to his memory and saving us from the necessity of further burdening our memory with the work of the past. Our methods here, at any rate, are more genial ; following, apparently, the precedent of Guy Fawkes we are celebrating the Bicentenary of Wren's death with festivities, this excellent dinner, to be followed, I am told, by a dance somewhere else : a little unusual, perhaps, yet there can be no doubt what we mean by it. It is a mark of our admiration and affection for the memory of one of the greatest artists England has ever had.

Wren's career, in a way, was an amazing anomaly ; I doubt if any other architect has ever been placed in a position of first-rate responsibility on such an absolute minimum of technical

ST. OLAVE, JEWRY.


ST. ANDREW-BY-THE-WARDROBE


ST. ALBAN, WOOD STREET.

training. It is a remarkable fact that, out of the six leading architects of the seventeenth century, two, Wren and Perrault, started as amateurs, and the third was a sculptor who prided himself on translating sculpture into terms of painting and treated architecture as so much modelling clay. Wren himself was born in a good position, highly educated in the Humanities, which then included science. He was regarded as a prodigy of learning and ability while still an undergraduate. From Wadham he proceeded to a Fellowship at All Souls. He was appointed Gresham Professor of Astronomy in London before he was twenty-four, and Savilian Professor at Oxford very soon afterwards. By the age of thirty he was recognised as one of the leading scientific minds of the day by John Evelyn and all the intelligentsia of the time. With the Restoration came his chance. The fortification of Tangier had to be considered. Poor old John Webb, an able and experienced architect, and the last representative of the Inigo Jones tradition, was forgotten; and the work was offered to Wren, who declined it, but was promised the reversion of the office of Surveyor-General, and in fact succeeded to it a few months later, a job even more flagrant than that by which Jules Hardouin Mansart superseded Lepautre at Clagny, for here was Wren placed at the head of all the architects of the time in England, and entrusted with most important duties, though all the architecture that he had done so far was an unimportant college chapel at Cambridge. So far, in fact, he had received no systematic training in architecture at all, yet instead of beginning at the foot of the ladder he started on the topmost rung. A man of less confidence in his own consummate ability would have been daunted; not so Wren. He wrestled with Serlio and Fréart, both very inaccurate writers, and in 1665 set off for his famous six months' stay in Paris, armed with excellent introductions, and fully determined to pick the brains of all the best French artists. This was the time when Bernini was struggling in vain to make headway against the well-organised opposition of the French architects, and Wren caught a glimpse of his designs, but it was a glimpse only. Wren also visited all the famous houses in and about Paris, but it is to be noted that the work he saw belonged to the older generation, soon to be superseded by Colbert's young men, and the brilliant staff of Louis XIV. Wren wrote to a friend that he was bringing home "all France on paper"; but "all France" could have been little more than the houses round Paris, as shown in the drawings of Silvestre and the elder Marot, and perhaps those interminable designs for ornament by Jean Lepautre: not much of a training for a first-rate architect, nothing approaching that of the French architects or of Wren's great predecessor, Inigo Jones, who paid two visits to Italy, studying on the spot and making most careful critical and analytical notes on the architecture of the Romans, on Palladio and others. The result of Inigo Jones's studies was that at the age of forty he was a most accomplished architect and was able to produce that little masterpiece of Neo-Classic, the Queen's House at Greenwich; whereas Wren, at the age of thirty-five, could do no better than the shapeless lump of the Sheldonian at Oxford, which in its technical incompetence and absence of feeling for beauty of line, of proportion, of composition, is perhaps the worst building erected in Oxford prior to the Gothic Revival. I need only call your attention to the S. façade, facing to the Schools, an ambitious attempt at a grandiose design by a very ingenious but most imperfectly trained young man. And in referring to this let me say at once that great artists are not to be judged by the experiments of their youth, but by the high-water mark of their attainment; and I have called attention to this weakness of technique in Wren's earlier work because it makes the extraordinary mastery of his art that he gained in his mature days all the more remarkable. The honest critic may reluctantly have to admit that Wren had not the perfect instinct for form and proportion of Inigo Jones, of François Mansart, of Jacques Ange Gabriel, but he possessed, in a higher degree than any of them, inexhaustible invention and resource. His mind, of great natural acuteness, was trained to a fine razor edge and went straight to the heart of matters. Consider, for instance, his scheme for the laying out of London. He may not have mastered the technique of architecture in his six months' stay in Paris, but no Frenchman could have helped him to that masterly scheme, in which he anticipated most of the theories of our modern town planners, the linking-up of buildings, the axis line and the radial treatment, the conception of the City as a whole and not as a collection of details. Consider, for example, his streets, ninety feet wide for the main thoroughfares, sixty for the secondary ones, and thirty for minor roadways. Nearly a hundred years later, when the great competition for the improvement of Paris was held, the French architects had not got beyond 36 feet as a maximum, and except in Portland Place we have not yet reached 90 feet. One finds the same versatility and quick grasp of conditions in the City churches. Wren had to design them under most difficult conditions of site, time, and money, yet how admirable they are. The great French churches of the seventeenth century are fine in their way, but there is a deadly monotony about them: as one French writer puts it, the Jesuit Church rears the same implacable façade in every land and under every sky. They had lost the secret of the Parish Church, their churches were useless as models for Wren; and all he found in England of recent church building consisted of the Caroline churches in which degenerate Gothic struggled with bastard Classic. Wren had to find his own way. He took as his data the strictly practical conditions of the churches, and these he translated into forms characteristically English, availing himself of the full paraphernalia of Neo-Classic, yet weaving into it reminiscences of earlier work, so that these towers and steeples were not exotics, but spoke at once to the English people in a language that they recognised as their own, and they preserved that individuality and that kindly character which in England is of the essence of a Parish Church.

I have pointed out the inadequate training that Wren received in architecture; he was under no master; indeed, he himself was his own master. Few men have had his opportunities of learning the art of building from their actual design and execution; but few, if any, have ever made such an amazing use of their opportunities as Wren did. Not only was Wren's a master mind, but he possessed the modesty of the true artist, who thinks of his work before he thinks of himself. He probably realised his own mistakes long before anybody else, and the rapidity of his development was due to his incessant criticism and analysis of his own work, learning from his own mistakes, accumulating vast stores of knowledge from his actual experience on the scaffolding of his buildings. Where other men have advanced by slow and laborious stages, Wren advanced *per saltum*, and the most extraordinary instance of this is St. Paul's Cathedral. Wren appears to have made several designs. There was his own favourite one, rejected by the clergy with some justice, inasmuch as though pleasantly reminiscent of some of the projects for St. Peter's, it was quite unsuitable for the purpose of the Cathedral. Then there was the utterly preposterous Warrant design, that nightmare conception of a huge dome, truncated half way up, on which was to be reared a drum and another dome, which again was to have its top cut off and to be continued in a telescope steeple in six stages. This was the design "pitched upon," as the Royal Warrant put it, as "very artificiall, proper, and usefull." And my impression is that the authorities, being wholly ignorant of architecture, tossed up as to which of the designs they should select. Yet it was from this most unpromising start that Wren began and carried through to completion the glorious building of St. Paul's Cathedral as we now see it.

It was the same with nearly all Wren's buildings—they are so much finer in execution than as shown in his draft designs; and the reason is that Wren's splendid genius was constantly at work, playing round his building, criticising and correcting.

One or two reflections occur to me as the result of my meditations on Wren's career. The first is in regard to the training of an architect. It is the custom generally to start the technical training of students early, either directly in an architectural school or in a modified and rather more generalised form at one or other of our universities. The inevitable result is that general education has to be cut short, and this omission can never be made good in later life, because the aim of good education is not to cram in knowledge, but to train and discipline the mind while it is still malleable. Wren is the most conspicuous example of an architect who did not take up the technical study of architecture till he had completed an unusually thorough course of general education; and he supplies the most convincing evidence in favour of the gymnastic theory of education. It may be said that Wren was exceptional. To that I would say: this only proves the folly of the prevalent theory that anybody with sufficient training can become an architect and that all you have to do is to supply the crude material to our costly State-aided and other machines, turn the handle often enough, and out comes the architect.

I would say, on the other hand, that the natural endowment necessary for an architect is rarely found, and that it was the existence of this in Wren that was the other factor in his amazing skill. The other thought that occurs to me is that of the man behind the architect. We are too apt to believe the fanatics who impress on us that modern architecture is a mechanical affair without a soul of its own. I do not believe it. An architect can express himself in his art; indeed, he can give himself away; and one finds the meticulous man meticulous in his work, the small man small and the great man great; and this is where Wren was so splendid. In all his mature work one finds the quality of the man reflected, not only in his resourcefulness and invention, but in a certain fine balance of intellect. His was a cheerful, sunny nature, friendly, companionable and humorous, and it is this that endears his work to all of us as something peculiarly and intimately English. One does not think of him as one does of Jules Hardouin Mansart, elbowing his way to the front, flattering the great, trampling on the weak, and ending up with a marquisate and £30,000 a year, and the contempt of most of his contemporaries. One thinks of Wren in his dignified old age, visiting his masterpiece once a year, "as well pleased to die in the shade as in the light," and showing in misfortune the same dignity as he had at the height of his career, a man who in his life had enjoyed the affection and admiration of all the best men of his time; and to whom in his death one might apply those famous words of Pericles: "The whole earth is a shrine to the memory of illustrious men."

Mr. Mervyn Macartney (surveyor to the fabric of the cathedral) gave a short address on

RECENT INVESTIGATIONS AT ST. PAUL'S.

His speech would be short, Mr. Macartney said, and full of dry detail. The foundations of the cathedral were very shallow. The crypt was only 8 feet below churchyard level and the footings are immediately underneath the floor and extend 4 feet 6 inches below. They rest on a layer or stratum of earth which Wren considered would be strong enough to bear his cathedral, as it had been strong enough to bear Old St. Paul's. There could not be the smallest doubt that soon after the commencement of the building a slight settlement occurred; but he (Mr. Macartney) did not think it had increased very much since. The other day when they dug down and exposed the foundations they found no great settlement; but they found what they did not expect, namely, some large stones belonging to Inigo Jones's portico with classic mouldings. They found that this layer of clay was moist, though more or less protected from external water. The next point was a careful survey done by Colonel Sankey which proved that the level of the imposts on which the vaulting starts, though practically all right, showed a slight shrinking on the north-east corner instead of the south-west corner as generally believed. There is distinct subsidence which, in his opinion, was due to a very deep foundation dug for the north choir aisle. It was also discovered that the highest point of this impost was the pier next to it. All the eight piers of the dome tilted in towards the dome area, very much like a man standing on tip-toe. There was also a slight inclination for all these piers towards the south and the river: they found that all through the cathedral. It was not very much. The south aisle of the nave and the south-west tower all had an inclination towards the Thames—more in the case of the south-west tower than any other portion. There existed also a distinct inclination of the south wall of the south transept. The next serious thing was that there was an inclination on the part of every pier towards the middle—a bow of about 3 inches in each case. It occurred about halfway up and was believed to be due partly to the pressure above. The next discovery was a distinct tilt of the dome towards the south-west. He believed it started very early and that they tried to compensate it afterwards because it was only $1\frac{1}{2}$ inches at the level of the Whispering Gallery. Apparently when the builders had got to the springing of the arches they thought something was wrong and tried to rectify it. But there was nothing to be alarmed about. They also found that the dome was not circular, but it was a very fine ellipse and was 6 inches wider from north to south than from east to west. Consequently there was a slight break in the dome at each end. He did not know how to explain it except that he thought that the pressure of the dome was equal all round, but the supports of the nave and choir were heavier than those of the north and south transepts. Consequently if any movement did occur it would be on the north and south side. There had been introduced a good deal of stone veneer to hide the crushed material. Some of this latter was crushed because it was fastened by iron that had rusted through. Some ties were sound, but it was quite evident there had been serious faults and settlements from early times. We find from the accounts that no less than 18,000 feet super of stone had been used during 1708-9-10 by Strong, Wren's favourite builder. There must have been some serious fault to necessitate such a large expenditure on stone. The stonework of the lantern was in a very bad condition at the very top, where some of the ornaments had perished to the extent of an inch and a half on each surface—so these had to be tied up to prevent them falling. The public imagine that everything out of sight is not worth thinking about and so will not subscribe.

Wren Bi-Centenary Service in St Paul's.

The organisers of the Wren Commemoration and Canon Alexander must have felt amply repaid for their efforts when they saw the huge congregation which flocked to St. Paul's Cathedral on Monday afternoon to attend the service. In pomp and circumstance the ceremony was worthy of the great occasion.

Just before half-past 2, the choir and clergy, including the incumbents of Wren's City churches, followed by the Dean of St. Paul's and the Bishop of London, went to the West door, where the Lord Mayor and the Sheriffs had arrived in state, and where many members of the Grand Committee of the Royal Institute of British Architects, headed by Mr. Paul Waterhouse, the President, and Sir Aston Webb, P.R.A., Past President, were assembled. The long procession came up the nave to the singing of the hymn, "Blessèd city, heavenly Salem," The order of service included next Psalm cxxii, "I was glad when they said unto me: We will go into the house of the Lord," and Psalm cxxxii, "Lord remember David." The special lesson, Haggai ii, verses 4–10, was read by the Dean; and then came the anthem: "O clap your hands together," one of many composed by Maurice Greene, who, having been a chorister at St. Paul's, held the office of organist there from 1718 to his death in 1755. The prayers that followed included one from the service (discovered by Canon Alexander) for the consecration of the choir in 1697, in which occur the words:—

"Thou, O Lord, dwellest not in houses made with hands; heaven and the heaven of heavens cannot contain Thee; but though Thy throne is in heaven, earth is Thy footstool; vouchsafe, therefore, we beseech Thee, Thy gracious presence in this Thy house to hear our prayers, and accept our sacrifices of praise and thanksgiving":

and this was followed by a prayer of thanks

"for the singular gifts which Thou didst bestow upon Thy servant, Christopher Wren, whom we remember before Thee this day; beseeching Thee to grant that in Thy holy house, preserved from all dangers and guarded through the perils of war, we and those who shall come after us may be enabled so to worship Thee in sincerity and truth that we fail not finally to attain Thy heavenly promises."

Next came the hymn, "Lift the strain of high thanksgiving."

Then the Very Rev. Dean Inge gave an address on the text from Haggai: "The glory of this latter house shall be greater than the glory of the former, saith the Lord of hosts: and in this place will I give peace, saith the Lord of hosts." They had come there to do honour to one of the greatest of Englishmen in the building which was the greatest triumph of his genius. It was probable that the reputation of Christopher Wren stood higher to-day than it did 100 or 200 years ago. Sometimes it took a long time for a man to be appreciated at his true worth, and in his lifetime he often encountered injustice and neglect. Perhaps the most remarkable thing about Wren was that he was so much besides being a great architect. He was a true son of the late-flowering English Renaissance. Like the Italians of the earlier Renaissance Wren was no specialist, but turned his hands to a variety of subjects and excelled at them all. Wren was known as a mathematician, an astronomer and a psychologist before he won fame as an architect. He showed greatness of character and accepted with dignity and without bitterness many undeserved slights—as when the Government deducted half his modest salary. Like many other illustrious Englishmen he came of a clerical family. It would be an interesting subject to show how many of our greatest men we should have lost if the marriage of the clergy had been forbidden.

Great architects were fortunate in one respect—that their buildings remained as witnesses of their skill. The name of Wyatt was kept alive by the churches he strengthened and defaced. It was left for the modern apostles of Kultur to batter the churches left to us. The names of the first builders were mostly unknown. In a period otherwise so barbarous forgotten men erected these glorious monuments. Probably the marvellously beautiful Gothic cathedrals were the fruit of collective inspiration—there was no self-conscious æsthetic theory as in the present day. They came to be the natural and instinctively right expression of faith and worship. The workers themselves contributed not a little to the beauty of these buildings. It was not easy for us to realise how suited they were for the gorgeous moving drama of mediæval religion.

As a son of the Renaissance, Wren was not, perhaps, in sympathy with the marvels of unknown builders in a barbarous age—the cathedrals of Western Europe, which were the natural and instinctively right expression of the people who valued them as the people of to-day value football and betting news. It is hard to realise now the beauty of London before Henry VIII. dissolved the monasteries, and even up to the Great Fire. Wren was to have restored the old St. Paul's, the crown of the City, with its spire 500 feet high; and his plan was to restore it in a manner that makes us shudder.

London must have been a place to be visited from the ends of the earth. Those beauties were gone for ever, and it was useless to deny that Wren shed but few tears over the destruction of Gothic London, of which he does not seem to have seen the beauty. It was only the accident of the Great Fire which enabled him to live as the creator of the new St. Paul's instead of as the dubious restorer of the old.

Every style of architecture reflects the character of its age, whether it be Greek, Roman, Byzantine, Gothic or Renaissance. The Renaissance was a revolution. This spirit of Gothic architecture had no message for Wren.

Renaissance architecture meant to England rationality, completion, sober dignity; and these qualities in Wren's work appealed to the temper of his age—a sane and sensible age with not much poetry about it.

Sir Christopher Wren was an architect's architect. His talents were realised by those who studied the technique of his work, and that was the more remarkable since he only took it up in middle life. That great Cathedral was his chief monument. It has accumulated more glorious memories than old St. Paul's, which was only the centre of a small country, whereas the present building was the Metropolitan Cathedral of the greatest Empire in the world's history. In the last fifty years it had taken its proper place as the chief religious centre of the Empire.

The safety of such a building concerned the national honour, and they could not doubt that if they could ask Wren in what way he would most desire his memory to be observed he would have said: "Preserve St. Paul's; make it safe for 1,000 years; keep my great work safe beyond all doubt."

They had been proud to cover the walls of the building with the record of those who had died for their country. But St. Paul's was not merely the Valhalla of departed fighting men. They longed for the time when wars would cease throughout the whole world and they would be able to honour only the benefactors of humanity in the arts of peace. If there should be another European war it was only too probable that it would see the end of this and many other monuments of human genius.

After the hymn, "Jerusalem the Golden," the Blessing was spoken by the Bishop of London.

At the conclusion of the service the clergy, the Lord Mayor, and certain members of the congregation descended into the Crypt, where Christopher Wren is buried; and here Mr. Waterhouse, on behalf of the architects of Great Britain, accompanied by the architects of France, laid a wreath on the tomb. The wreath had the following inscription:—

"In thanksgiving to Almighty God
for the talents, industry and blameless life
of
Christopher Wren
in reverent homage to that great man's name and memory
and
in profound admiration for his mighty works
we Architects of Britain
lay this wreath on his tomb."

M. Augustin Rey, representing the oldest society of French architects, the Société Centrale, presented a palm in honour of the "grand artiste, grand citoyen, grand patriote"; and Mr. Candler Cobb, attaché to the American Embassy, on behalf of the Architectural League of New York, in offering a wreath, spoke of the influence of Wren on the architecture of his country A wreath was also sent by the French Société des Architectes. Diplômés par le Gouvernement.

The card attached to the wreath placed on the tomb by Mr. Candler Cobb bore the following words:—

"In appreciative memory of Sir Christopher Wren, whose work marked so distinct a step in world architecture, and to so large a degree influenced the Colonial architecture of America, this wreath is offered in loving memory by the Architectural League of New York and is placed here by a representative of America's Ambassador, Mr. George Harvey, to the Court of St. James, by the permission of the Dean of this Cathedral."

After the service at St. Paul's the members of the Grand Committee formed in connection with the celebration by the Royal Institute of British Architects, with the help of other bodies interested, were entertained informally at tea by the Lord Mayor and the Lady Mayoress at the Mansion House.

On Sunday, February 25, which was the actual date of Wren's death, appropriate music was sung at St. Paul's Cathedral, the anthem at the afternoon service being Parry's "I was glad when they said unto me." Canon Alexander, as Canon in residence, preached on the subject of Wren, and there was a collection for the Cathedral Preservation Fund.

Sir Christopher Wren's Work Outside London.

By P. W. Hubbard, M.A., A.R.I.B.A.

Sir Christopher Wren's bicentenary coincides with an epoch, in which a return to adaptations of English Renaissance Architecture is becoming the rule rather than the exception. We have shaken ourselves free from the slavish copy of Greek Temples, and purged our souls of Gothic Revivals, and are now ready to take up the torch, which was lit and borne by Inigo-Jones and Wren.

The tendency of modern research has been to show that much of Wren's work was never executed by him, although in buildings of the period his influence is undoubtedly present, and pupils such as Hawkesmore and others may have been the real architects, while the "Master" himself only performed a nominal supervision. This we know to have been the case in regard to much of his London work, where as "Surveyor General" he did no more than approve certain plans.

In a short analysis, such as this, one can only refer to Wren's chief works, or to those of special interest, thus numerous omissions are bound to occur.

The buildings mentioned below are arranged according to general convenience of description, and do not follow strict chronological order.

. . . .

Wren's first architectural commission was obtained in 1662, through his uncle, who desired him to design a doorway and lobby for the North Transept of Ely Cathedral. Though small, it is of special interest, in that we find a purely Renaissance doorway—albeit of much strength and beauty—imposed on that venerable pile, whose roots lie deeply embedded in Gothic tradition. Few modern architects would have dared to introduce such an incongruity of style, or placed their imposts with such total disregard for the lines of the existing billet moulding.

If we remember that Wren designed this doorway at a time when he had no architectural status, we are amazed either at the revulsion of architectural thought from Gothic tradition, or else at the stupendous audacity of the architect.

Pembroke College, Cambridge, is another of Wren's early works, and, though the interior has now lost its proportion through subsequent alterations, the western elevation affords an example of simple and conventional treatment, relieved by a hexagonal belfry of free design, delightfully poised behind the pediment.

Another of Wren's beautiful turrets may be seen at Emmanuel College, Cambridge, though in this case we have a unique example of the crowning feature piercing the pediment, and its vertical lines being carried down to the ground through a break in the entablature. This early example of Wren does not merit such praise as the designs of his "middle period," and never again do we see this broken-pediment feature repeated. Emmanuel College must not be left without some reference to the employment of fifteenth-century shaped windows complete with their wooden mullions. There are other buildings attributed to Wren where we shall have occasion to note a similar treatment.

If we turn our attention to the sister University of Oxford, we shall observe how that mangnificent mediæval town was brought up to date by Wren from about 1663 onwards. So much doubt has now been cast on the authorship of many buildings previously assigned to him, that a brief paragraph on what may be called the "Wren manner" will help us in applying certain tests to discover the originator of these doubtful designs.

. . . .

Wren did not begin his architectural career until the age of 30, and there is reason to suppose that his early training originally inclined him to devote his talents to constructional problems, rather than to exercises in design.

Thus it is that we invariably see in all his works a love of sound building apart from architectural clothing. This, perhaps, is better exemplified in his City churches than elsewhere, on account of the peculiar shaped sites on which they were placed.

However, throughout his works in the country, we constantly note his love of the hexagon and octagon, and admire the skill which his ingenuity devised in overcoming constructional difficulties caused thereby.

Wren has sometimes been accused of a certain carelessness in the disposition of his ornament, and one or two works give the impression that once the problems of construction had been solved, he lost interest in the clothing of his designs with decoration.

In 1665, writing from Paris—the only country in which he studied architecture outside England—Wren says:—"Building certainly ought to have the attribute of eternal and therefore the only thing incapable of new fashions." Thus, eschewing "the little curiosities of ornaments" that he found on the Continent, he imparts to his works that power, that vigorous depth of recessing, that strong contrast of light and shade, that makes his architecture so essentially English and so essentially "masculine." All the same hederived much profit from this French tour, as the influence of Lepautre clearly shows in the rooms of Hampton Court.

His use of Columnar orders, his favourite Corinthian pilasters, his deep stone panels beneath huge windows, and his love of large rectangular blocks of stone are too well known to need further description.

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A building about which considerable uncertainty exists is the Ashmolean Museum, Oxford.

It has generally been attributed to Wren, but recent research has discovered an old print bearing the name of "T. Wood" as the architect. Messrs. Belcher & Macartney affirm, however, that the work of two men is clearly discernible. The deeply recessed entrance flanked by Corinthian columns, the scholarly design and proportion of the eastern façade, the continuation of the vertical line from roof to ground all indicate Wren; nor do the mullioned and transomed Jacobean windows, recalling Emmanuel College, divert us from our opinion.

The coved tympanum over the doorway is further evidence of the ingenuity of the "Wren manner."

It is doubtful, however, that he would have designed the balconies on the north side, which tend to destroy the proportion of the windows.

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The Sheldonian Theatre, Oxford, was one of Wren's earliest works, and indicates constructive ability rather than artistic merit. The point of interest lies in the fact that he successfully placed a flat ceiling over a span of nearly 70 feet.

The ground plan is said to be taken from the Theatre of Marcellus, which seems tolerably probable, as we know Wren was acquainted with Serlio's work of this subject.

The elevation which faces the schools has been criticised as grim and heavy, though, as Miss Milman points out, this is in strong contrast to the lightness and playfulness of the interior, which remains much as the great architect left it.

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Tradition attributes Trinity College Chapel, Oxford, impartially to three architects—namely, Aldrich, Bathurst and Wren. We know the latter had done work on the quadrangle at Trinity some twenty years previously, and there is reason to believe from the excellence of the chapel designs that this is his also. There is, however, still extant a letter from Wren, which speaks of the work "as already too far advanced to admit of any advice"; none the less he sent "his thoughts which will be of use to the mason to form his mouldings."

Externally there is much of the "Wren manner." Again the vertical lines of the tower are carried to the ground—an invariable principle which may be seen in most of his City churches. The excellent detail of the interior woodwork, the ornament of the screen, the ceiling, that great panel over the altar, reminding us of a similar one in Chelsea Hospital—all proclaim the master-touch.

Before we leave Oxford we must not forget to have a look at Tom Tower, that curious Gothic erection, which the Classic architect was forced to impose over the Wolsey gateway at Christ Church. One can imagine how he would have loved to design a delicate cupola with graceful columns instead of the heavy " clump " that now exists.

All the same this work has been much praised for its proportion, and repetition of the ogee motif in windows and cupolas, but it fails in giving the effect of lightness, and that ethereal transcendancy of Gothic feeling. The base of the superstructure is bounded by horizontal lines in such an orderly manner that it recalls the carefully-controlled west front of Notre Dame Cathedral.

While on the subject of Gothic, Wren's criticism of the use of iron ties at Salisbury Cathedral is of interest. He says : " This way of tying walls together with iron, instead of making them of that substance and form that they shall naturally poise themselves upon their butment is against the rules of good architecture."

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Let us now return to Cambridge, where, in 1675, Wren set about designing his famous library at Trinity College. He gave his services free, being a friend of Dr. Barrow, the Master, but these services include " the whole designe comprised in 6 Figures." And, furthermore, he says : " I would willingly take a farther paines to giue all the mouldings in great, we architects are as great pedants as criticks or Heralds."

In this building Wren has followed the true Palladian manner, though his own originality may be seen in his method of filling in the lower arches of the East front with solid tympana, in order to make the Library floor at the same level as the first floor of Neville's Court.

As Miss Milman remarks, this has the effect of dwarfing the proportion of the lower stage, and a further criticism is made on account of the fact that no attempt is made to make the horizontal divisions of this façade harmonise with those of the Court.

The interior affords magnificent examples of Grinling Gibbons' carving, whom, we trust, received more than £4 4s. a month, which was paid to Robert Grumbold, the master-mason, who executed the building.

Another work of the same period is the curious composition of the three niches, which face the library from the opposite side of Neville's Court, known as " The Tribunal." This may be Wren's work, but not much can be said of it, except that it shows the desire of the times to obliterate a portion of the great Gothic Hall of Trinity, against which it stands.

While on the subject of libraries, reference must be made to that delightful work in yellow " Ancaster " and grey Portland stone, that Wren designed for Dean Honywood at Lincoln Cathedral.

Here, once again, we see a library placed over a cloister, in order that the free passage of air beneath may help to preserve the books. Again we see Wren's preference for flat ceilings over cloisters instead of low arches, although one cannot help noticing how unfortunately the one arch that he has used in the north-east corner springs from its imposts. The height of the building is emphasised by the vertical lines of the windows being carried down by projecting stone aprons.

We have in this cloister an example of the only occasion in which Wren resorted to the Early Renaissance style of arcading, with the possible exception of the Town Hall, Windsor.

To quote again from Miss Milman's comprehensive book, Wren's love of space and air is well illustrated by the dazzling effect of entering the library after passing through the low, little, ill-lit room that served as a book-store in Tudor times : a useful simile for those who love to contrast the glorious awakening of Renaissance thought and architectural advance, with the previous darkness of mediævalism.

The next public works to come under discussion are the hospitals of Kilmainham and Greenwich. Chelsea, which does not come within our scope, may be passed over with the single comment that in this restful building we can discern the tender solicitude which the great architect evinced for the future inmates of the hospital.

With regard to Kilmainham in Ireland, we have no record of his having gone there, and it is possible that he prepared plans, which were altered and executed by others.

In the nineteenth century, the original brick walls were rough-cast, and some of the windows Gothicized ; hence there is not much to be seen of the " Wren manner " at the present day, although the cloisters are reminiscent of Emmanuel College, Cambridge. The tower was built in 1701, and was placed behind the pediment facing the river front. It makes an unhappy composition, and it is doubtful whether Wren can have had any hand in this, as we have remarked that his towers always started from the ground. A cupola or lantern is what we should have expected in this position.

The entrance to the great hall seems to lack that sense of proportion which is such a feature of Wren's art, yet on the external fronts facing south-west and east there is a careful centralisation of ornament, and those broad external window-frames which again and again occur in his work.

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Of the wonders of Greenwich there is insufficient room to write here. This wonderful embellishment of the river front, comprising the fine porticos, flanked by engaged Corintnian columns between the usual pilasters ; the noble cornice—no doubt influenced by Inigo Jones—the splendid colonnade of double columns, enhanced by the broad flights of steps, all combine to create an effect which would defy even a descriptive pen. The whole is purely the conception of a master-mind, and has been acclaimed as Wren's greatest achievement.

Had he done no more than design those two towers over the Queen Mary and King William quarters, his name would have gone down to posterity. They are works not only of art, but of ingenious skill. So also are the four arches and pendentives on whose crown they rest. These domes are said to have been influenced by the great church at Florence, being octagonal rather than round, but one may discount this, as the only dome that Wren probably ever saw was that over the Church of the Sorbonne by Le Mercier.

It must not be forgotten that at Greenwich Wren had to subordinate his designs to the existing " Queen's House " (designed by Inigo Jones for Henrietta Maria), a culmination altogether unworthy of his great scheme. On the other hand, he may have been helped by the work of Webb, on the river part, which had already been erected.

Before leaving Greenwich we must note the Observatory, and in doing so will remark the singular lack of proportion evinced on the front facing towards the river. Though this is undoubtedly Wren's work, we must remember that he was hampered by cost, and having to use old materials, and it was necessary that the windows should give as great an expanse of sky-view as possible.

In dealing with Wren's domestic work, we are confronted with some fine mansions that have been attributed to him on quite insufficient evidence.

Such an one is Belton House, near Grantham, which was completed in 1689. It is built of yellow Ancaster stone, and is H-shaped on plan. The projecting wings on the south side suggest Wren's love of creating sun-traps, and the octagonal turret recalls other instances of his ingenuity. In the interior, the fireplaces placed cornerwise in the small rooms, as at Hampton Court, seem to bear the stamp of his personality. The whole exterior composition, however, somehow lacks the vigour of his powerful hand, and we have noticed similar treatment of turret and balustrade in the work of Christopher Kempson.

Groombridge Place, Kent, is another mansion which resembles Belton in the shape of its plan and the uncertainty of its author. A curious want of classic proportion in the different length of the columns round the entrance is hardly what one would expect from a follower of Palladio. At the same time, we have in mind the unsightly appearance, at

Chelsea Hospital, of the twin shafts of the pillars on the south front converging into one another.

At any rate, Wren's reputation as an architect would not suffer if Groombridge were assigned to the hand of another.

Such anomalies as these may have been the cause of jealous contemporary critics, dubing Wren's work as unscholarly.

In these country buildings one is struck by the delightful colour tone. Expanse of red brickwork of charming texture relieved by Portland stone is the keynote employed in the majority of cases. Good proportion and simplicity of design may be seen in the Big Schoolroom at Winchester, which is embellished by strong decoration.

A less delicate work of the same type, but rather overpowering for its slender columnar legs is the Guildhall, Rochester, while beautiful proportion and strong concentration of ornament is regained at Morden College, Blackheath.

To Wren has been assigned the Bishop's Hostel, in Trinity College, Cambridge, which bears the date 1670.

It is a simple brick building, having the stamp of the "Wren manner" in domestic form. The same projecting wings as at Belton may be seen, and the doorway between Ionic pilasters with their rather ungainly bases, was evidently designed by the same hand that produced the gateway to the Middle Temple.

There seems so little authority for stating that Wren was responsible for Brazenose College, Oxford, that it need not come under discussion here. In the same way there is no mention in the list of works compiled by his son, of the Upper School at Eton, though tradition has associated this building with his name, and from the appearance of the double columns engaged in the piers of the cloister, the balance of probability suggests that this may be counted among his works, when we remember that he represented Windsor in Parliament and was often employed at the Castle.

Finally we come to Hampton Court. We know Wren built it for William and Mary; we know the whole scheme was not carried out as originally intended; we know how this magnificent country house has been compared with the Palace at Versailles; and we know how much has already been written, thus brief comments on the "Wren manner" will suffice here.

On the east front beneath the pediment we get four engaged columns over the doorway, flanked by the usual Corinthian pilasters. These columns are closer to each other than they are to the pilasters on either side. Messrs. Belcher & Macartney have directed attention to Wren's ingenuity in curtailing the ends of the entablatures, over the three middle windows, in order to make them fit the narrow spaces. Doubtless the necessity for this would not have occurred had Wren been familiar with Greek work instead of Roman, as he would probably have contracted the inter-columniation at the flanks rather than in the centre. This is but an exercise of the fancy, yet many interesting speculations might be indulged in on this subject. Wren was continually writing on the excellence of the Roman manner, but had he lived in the time of Stewart and Revett he might indeed have excelled himself further.

We have, however, evidence that he was acquainted with "refinements"; some of his towers are imperceptibly tapered, and here at Hampton Court his elevations are greatly enhanced by the change in spacing of glazing bars.

The much admired Fountain Court, with its overcrowded fenestation, has nevertheless been criticised on account of the inner segmental arches of the cloister partly blocking the semicircular arches of the arcade.

We are told that this was done at the wish of William III., but was it not at Trinity Library that much the same thing also happened about a dozen years before? But to be fair we must acknowledge Wren's preference in cloisters for flat ceilings to arches. Hampton Court does not rely for effect on details, the whole is a glorious composition of colour and line, brick and stone, light and shade, while even the monotonous sky-line helps to give the idea of grandeur, dignity and order. We can almost pardon the architect for destroying part of the old Henry VIII. Palace, when in its place we get superb works of art by Grinling Gibbons in wood, stone carving by Cibber, and iron work by that great artist in metal, Tijou—all combining to add lustre to the nobility of Sir Christopher Wren's conceptions.

The London Society's Tribute to Wren.

On Saturday last, Mr. Edwin T. Hall, F.R.I.B.A., a Vice-President, placed, on behalf of the London Society, a wreath before the portrait of Sir Christopher Wren, at the National Portrait Gallery. Mr. Hall spoke as follows:—

Sir Christopher Wren was a man not only of talent but of genius, whose mind, cultured in many branches of knowledge, was in all that he undertook creative, and whatever he did was not only thorough but also distinctive of his personality. Eminent in Science, he became great in Art. He was born in 1632, and went to school at Westminster, which he entered at the age of ten, and there remained for four years. He at this early age invented some astronomical instruments and became conspicuous in mathematics, for which then and later he had an avidity. Leaving school, he continued privately for three years his scientific studies and was honoured by the friendship and encouragement, among others, of Dr. Wilkins, who became head of Wadham College, Oxford, which was doubtless the reason why Wren, at the age of 17, entered that College in 1649. When there he developed the scientific side of his learning to such a marvellous degree that five years later Evelyn called him "a rare and early prodigy of universal science." He resolved a problem set by Pascal, who had thought it unsolvable, and soon his reputation extended to the South of Europe. At the age of 25 he became Professor of Astronomy at Gresham College and at 29 he became Savilian Professor of Astronomy at Oxford. He there made a model of the moon which excited great interest, and by the King's command Wren submitted this to His Majesty, who eventually acquired it.

He was one of the active promoters of the Royal Society, which was founded in 1662, and was selected, although only 30 years of age, to draw the preamble of the Charter. But a new call came to him. He was required to give his genius to architecture, and with a facility which can almost be called miraculous he turned to Art, and in it he succeeded as he had in Science. He had had no training. He had of course seen the work of Inigo Jones, and in 1665 he spent six months in and around Paris, where he saw and studied the architecture of that city and its environs, making copious notes and drawings. This appears to have been the only extraneous aid to his knowledge, but he had something greater within himself, his personal creative genius.

This is no place to give a catalogue of what he did, but it ranged over a wide field, and culminated in the great Cathedral of St. Paul. He had visions beyond that, for he produced a scheme of "town planning" for rebuilding London after the Fire, which scheme embraced the ideals and practical details for which we are still striving.

It may be said, however, that he designed fifty churches in London, of which the spires alone may serve to note the infinite variety of his conceptions. That of Bow Church, with its grace, may be cited as a conspicuous example among many others; St. Stephen's, Walbrook, is a casket of price, and the Cathedral, for dignity and beauty, is unrivalled. In all we realise the spirituality of the man for whom, like the Greek artists, material wealth had no allure; in all estates he was patient, modest and circumspect, and he lived to the ripe old age of 91. In conclusion, I think we may to-day appropriate the words of Pericles, spoken nearly 2,400 years ago, and apply them to London. Said he:

> "Our public opinion welcomes and honours talent in every branch of achievement, for not any sectional reason, but on grounds of excellence alone."

The bicentenary of Sir Christopher Wren is celebrated in the March number of the "Windsor Magazine" with a series of new photographs, by Will F. Taylor, of his most notable buildings finely reproduced. In the course of his accompanying letterpress the artist-photographer says of Wren's single visit to the Continent:—"Wren's only time abroad was the few months he spent in Paris in 1665. Here he found the Frenchman Mansard and the Italian Bernini busy. Wren wrote from Paris: 'The Louvre for a while was my daily Object, where no less than a thousand Hands' (paid, as Wren elsewhere thought it worth noting, 'every Sunday duly') 'are constantly employ'd in the Works, some in laying mighty Foundations, some in raising the Stories, Columns, Entablements, etc., with vast Stones by great and useful Engines; others in Carving, Inlaying of Marbles, Plastering, Painting, Gilding, etc. Which altogether make a School of Architecture, the best probably, at this Day in Europe.'"

Correspondence.

Architects' Benevolent Society.

To the Editor of THE ARCHITECT.

SIR,—In view of the many demands made on the Architects' Benevolent Society as the only philanthropic organisation in the United Kingdom solely devoted to the assistance of architects, or their widows and orphans who have fallen on evil days, and in view also of the difficulty the Society often experiences in affording adequate and effective help, the Council have now developed a scheme whereby they hope, with the co-operation of the profession, materially to increase the Society's funds and enable it to grant a fuller measure of relief to applicants than it finds possible at present.

In brief, this scheme is that the Architects' Benevolent Society should act as an agent for life assurance, the commission thus obtained to be shared by the Benevolent Society and the architect who insures. Thus, if you insure your life, for, say, £1,000, half of the sum of about £10 received as commission will be credited to the Society as a subscription to its funds in your name, and the other half will be returned to you in the form of rebate. If, however, you prefer it, the second half may also be regarded as a contribution to the Society's funds. All subsequent commissions received in respect of renewals will be treated as a subscription to the Society in your name.

Insurances can be effected with or without medical examination, and full particulars will be supplied on application to the secretary. If desired, insurances other than life will also be arranged for.

In this way a regular income will be assured the Society, but the amount received for each insurance will, naturally, be small, and it is only by engaging the sympathy and help of the profession as a whole that we can hope to augment our funds to any appreciable extent. If every architect would realise that by effecting his insurances through the Benevolent Society he is not only acting in his own best interests, but is helping to insure for the less fortunate members of the architectural community a provision against want and poverty-stricken old age, he would, we feel sure, give us loyal and enthusiastic support.—Yours, etc.,

PAUL WATERHOUSE, *Chairman.*
W. HILTON NASH, *Hon. Treasurer.*
CHARLES A. NICHOLSON, *Hon. Secretary.*

9 Conduit Street, Regent Street, W.1.

Government Valuation of Houses.

To the Editor of THE ARCHITECT.

SIR,—I am able to announce, on what I believe to be perfectly reliable authority, that the quinquennial valuation of house property in England and Wales (with the exception of the London County Council area) is now complete, that the assessments are in most cases lying in the local Inland Revenue offices ready for the issue of the notices after April 5; and that for houses up to £61 a year annual value the assessment has been increased by 40 per cent., with smaller percentages for houses of a higher annual value.

This means for the majority of landlords that the shilling reduction of income tax granted in last year's Budget is more than wiped out, and that they will be paying more than before. But in the case of a vast number of small houses it means more than that, for it brings them above the limit for exemption from house duty. House duty is payable on all houses of an annual value of £20 or more; and, it should be noted, it is payable by the tenant and not by the landlord. With the increased assessment it will be chargeable on houses which have hitherto been assessed at £15. Where is this to come from? Is it to be cast as a new burden upon tenants of meagre means, whose rents are already a strain upon their resources, and, if so, has the Exchequer any real hope of collecting it? Or is it to be a further charge, quite outside his contract, on the landlord, who in the case of small properties usually engages to pay the rates and taxes?

There is another point, which is more serious still. The local authorities usually accept the income tax assessment for rating purposes. If this is done the increased levy for rates, which will have to be paid by the tenant, will be very heavy indeed. Of course, the local authorities ought not to want any more money merely because assessments have gone up, and in theory the rate in the pound should go down proportionately; but the opportunity for extracting something extra and engaging in some pet scheme which has had hitherto to be put on one side is not likely to be lost. He will be a very determined optimist who expects no increase in his rates.

A very strong protest should be made against a step which must inevitably increase the financial burdens of both landlords and tenants. It is probable that there will be a vast number of appeals to the Income Tax Commissioners, who are an unpaid body of business men. If these appeals are general, will not the whole system break down?—Yours, &c.,

DECIES.

Director Income Tax Payers' Society,
2 Victoria Street, S.W.1. February 22.

The Wren Bi-Centenary.

To the Editor of THE ARCHITECT.

SIR,—The Wren Bi-Centenary recalls to mind the famous architect's plan for the rebuilding of London on spacious and beautiful lines after the Great Fire. Had private interests not suppressed Sir Christopher's grandiose scheme of wide avenues radiating from a central *plaza,* we should not now be wrestling with a hundred perplexing traffic problems, and London would have rivalled Paris in the possession of broad and tree-lined thoroughfares.

The moral is plain. In these days when rebuilding schemes are afoot in all our cities, narrow individualistic preferences should not be suffered to rule out bold and comprehensive conceptions of the City Beautiful.

Cannot some co-operative, general plan be adopted for the laying out of broad, boulevarded avenues, in which artistic colour schemes should have their part? Thanks to the possibilities of glazed ceramics, the streets of London may be diversified, not only with natural verdure, but also with tinted buildings, so that, in the words of Mr. Halsey Ricardo, we may see reproduced in our façades and house fronts "the almond blossom hue that flushes the sea front of the Doge's Palace and the stained amber and gold of the façade of St. Mark's in Venice."—Yours, etc.,

J. R. CLYNES.

House of Commons.
February 26.

Forthcoming Events.

Friday, March 2.—Institution of Municipal and County Engineers. Meeting of the Metropolitan District at Limehouse Town Hall. 10 a.m.

Monday, March 5.—Royal Institute of British Architects. Special General Meeting at 9 Conduit Street, W. Discussion on Mr. S. Hurst Seager's paper on "The Lighting of Picture Galleries and Museums." 8 p.m.

Architectural Association. Meeting at 35 Bedford Square, W.C. Paper by Mr. Gilbert Frankau, entitled "Architecture and Literature." 7 p.m.

Architecture Club. Opening of the Exhibition of "Twenty Years of British Architecture," at Grosvenor House, Upper Grosvenor Street, W.1. 3.30 p.m.

Wednesday, March 7.—Institution of Sanitary Engineers. Paper by Mr. J. A. Coombs, entitled "The Mechanics of the Activated Sludge Process." 7.30 p.m.

Royal Archæological Institute. Meeting at Society of Antiquaries, Burlington House, W.1. Paper by Dr. C. Fox, entitled "The Distribution of Population in the Cambridge Region in Early Times." 5 p.m.

Thursday, March 8.—Royal Institute of British Architects. Public lecture at 9 Conduit Street by Mr. Walter Bayes, entitled "Painting and Architecture." 5 p.m.

Incorporated Institute of British Decorators. Meeting at Painters' Hall, Little Trinity Lane, E.C. Paper by Mr. G. Murray, entitled "Colour Decoration." 7.30 p.m.

Architecture Club. Popular Lecture at Grosvenor House, Upper Grosvenor Street, W.1, by Mr. Walter H. Grove, F.S.A., entitled "Historical Study and Modern Design in Architecture." 5 p.m.

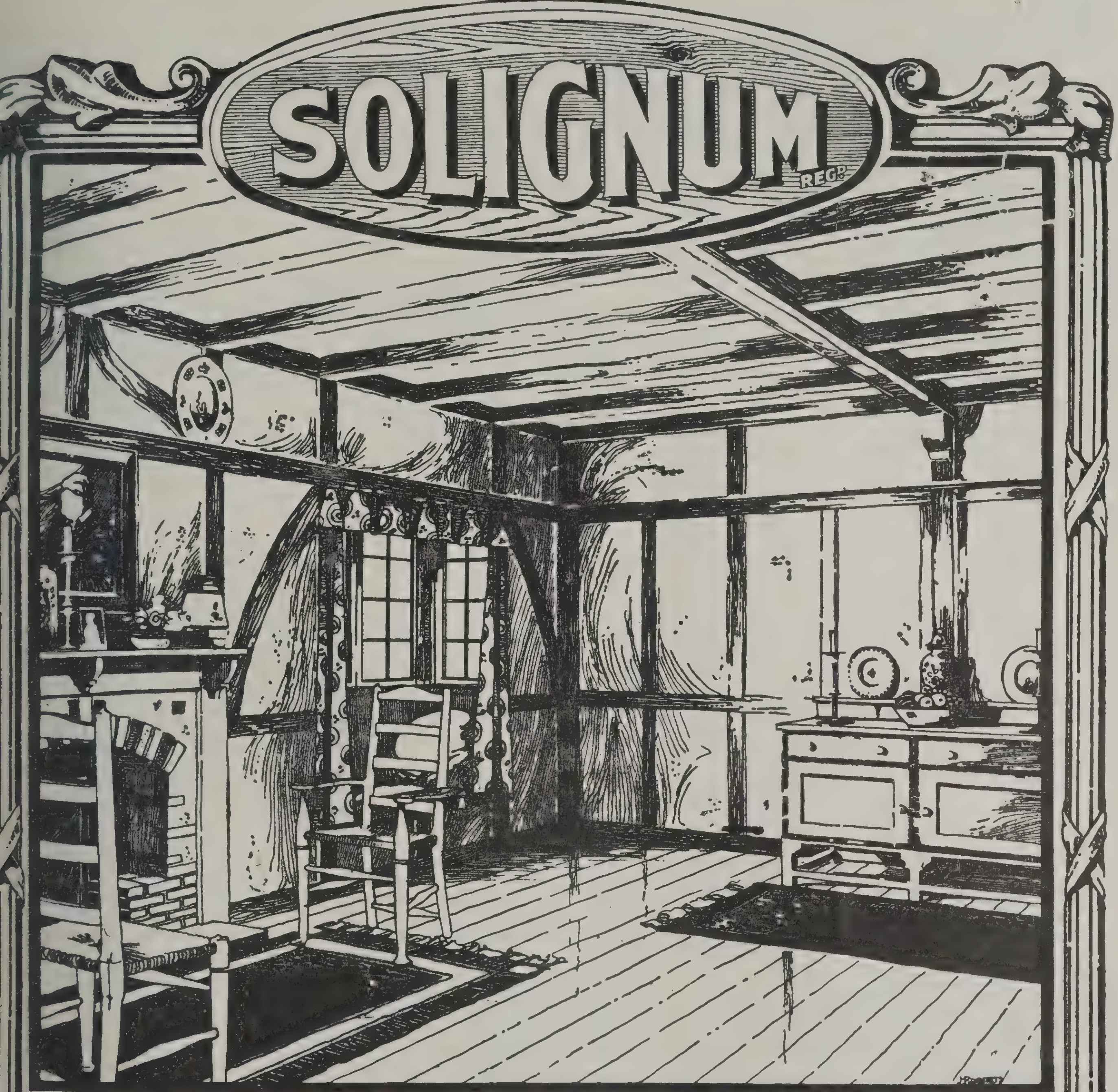
Friday, March 9.—Fancy Dress Ball and Carnival arranged by the Architectural Students of London, at 9 Conduit Street, W. 9.30 p.m.

Town Planning Institute. Meeting at 92, Victoria Street, Westminster, S.W. Paper by Mr. L. C. Evans (Town Clerk, Salford), entitled "Acquiring and Replanning Congested Areas." 6 p.m.

London Society. Meeting at 18 John Street, Adelphi, W.C. Paper by Mr. Frank Pick, entitled "The Art of the Street—as illustrated in London." 5 p.m.

Saturday, March 10.—Reading Society of Architects. Meeting at University College, Reading. Paper by Mr. A. R. Powys, entitled "The Protection of Ancient Buildings."

The following candidates have passed the R.I.B.A. Special War Examination held in Toronto in December last:—J. G. Brown, Longuenil, P.Q.; H. P. Illsley, Westmount, P.Q.; J. R. Jeffrey, Westmount, P.Q.; J. L. Kingston, Ottawa; E. S. Marrotte, Montreal; J. K. Nesbitt, La Tuque, P.Q.; A. Prideaux, Montreal; and H. R. Wiggs, Quebec, P.Q.



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Wren Documents at the Public Record Office.

The following documents are a few specimens of the large number of letters by or about Wren preserved in the Public Record Office, mainly among the Treasury papers, of the period 1670–1718, during which he was Surveyor-General of the Royal Works. Very few, however, of his original plans and drawings remain here, the bulk of them being at All Souls College, Oxford.

In addition to those shown in this case, there is an autograph letter by Wren among the permanent exhibits in this Museum (Pedestal No. 87).

For further details respecting the papers shown here or similar correspondence, the *Calendars of Treasury Papers* should be consulted.

1. Minutes of a Treasury Meeting, at which some of Wren's Hampton Court work was subjected to rather lively criticism. 13 January, 1689–90.

Treasury 29/7, page 189.

2. Report by Wren on "Mr. Houseman's" paintings in the Chapel Royal at St. James', recommending a payment to him of £230. 7 July, 1683.

Receipt on same page by Jacob Huysmans for the balance due to him of the above. 14 July, 1683.

Exchequer Accounts, Various, 674/31.

3. Report by Wren on the damage done to John Evelyn's house, Sayes Court, Deptford, by the retinue of "His Czarish Majesty" (Peter the Great), to whom it had been lent by Admiral Benbow, then tenant of the house. 11 May, 1698.

4. Enclosure to the preceding being a report by George London, the King's master gardener, giving further details of the damage (*see* Evelyn's Diary, ed. 1819, Vol. II. p. 60).

Treasury, 1/53/4/1 & 6.

5. Report by Wren on the suitability of the Cockpit at Westminster for use as a State Paper Office.

6. Plan, by Wren, of the Secretary of State's Office there, with comments, enclosed in above. 9 January, 1706–7.

Treasury 1/101/4/1 & 2.

> The State Paper Office was housed in various buildings in and near Whitehall till 1854, when it was abscribed by the Public Record Office and its contents transferred to the present repository.

7. Report by Wren on the repair of Hyde Park Road, enclosing—

8. Plan of Hyde Park Road from Kensington to the present Hyde Park Corner, showing the progress of the repairs. 23 August, 1711.

Treasury 1/136/54 & 54A.

Competition News.

Members and Licentiates of the Royal Institute of British Architects must not take part in the competition for a block of five shops for the Prestwich Co-operative & Industrial Society, Ltd., because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

First prize in the competition for the nurses' home of the Chelsea Hospital for Women has been awarded to Messrs. Greenaway & Newberry; second to Messrs. Horace Field & Dighton Pearson; and third to Mr. Morley Horder. For the home, which is urgently needed, over £30,000 will be required, including equipment.

A Special Committee of Dundee Town Council last week considered the building of the east wing of the new Caird Hall square and the construction of the square generally. A member moved that competitive plans be invited for the design of the Caird Hall and square, and that premiums be offered amounting to probably £750 or £1,000. Another member, John Reid, stated that such action would be equivalent to a vote of "no confidence" in Mr. James Thomson, the City Architect, who had constructed the hall. So far as he understood, everybody was more than pleased with the hall, and they knew that Mr. Thomson had received a gift of £5,000 from the Trustees for his services in connection with its construction. It was stated that for the construction of the east wing in ferro-concrete faced with stone the cost would be £28,000, and with plain stone £5,000 less. The Committee finally agreed to open competition, and fixed £500 as the sum to be given, and the Lord Provost suggested three prizes of £250, £150 and £100, with a 100 guineas to the arbiter. It was agreed that the Town Clerk should write to the local Institute of Architects to learn under what conditions they would compete.

The Second Hampstead Tenants, Ltd., recently invited competitive designs for the lay-out and erection of a group of labour-saving flats on a site in Hampstead Way, near Golders Green Station. £1,000 was offered in premiums to be awarded as follows: First, £500; second, £300; third, £200. The Assessors were: Mr. L. Rome Guthrie, A.R.I.B.A.; Mr. John C. S. Soutar, Lic.R.I.B.A. (Architect to the Hampstead Garden Suburb Trust, Ltd. Mr. Edmund J. Cooper, Secretary, Second Hampstead Tenants, Ltd.). The awards have been made as follows: (1) Mr. J. B. F. Cowper, A.R.I.B.A., "Olwyna," Wildwood Road, Hampstead, N.W.; (2) Messrs. G. A. Rose, A.R.I.B.A., and A. V. Farrier, A.R.I.B.A., 56 King's Road, Wimbledon, S.W.; and (3) Messrs. Cyril A. Farey, A.R.I.B.A., C. E. Simmons and A. Trystan Edwards, M.A., A.R.I.B.A., Palace Chambers, Bridge Street, Westminster. The drawings will be on exhibition from March 7-13 at the New Workshops of Messrs. Garsubil, Ltd., Finchley Road, Temple Fortune, Hampstead, N.W.

The Haifa Business Centre Co-operative Society, Ltd., announces a competition for a design for building a business centre in Haifa. Four prizes are offered—viz., £60, £40, £30 and £20. In addition, two plans will be bought. The judges will be Mr. R. Harrison (Chief Architect to the Palestinian Government), Dr. A. Cifrin (Town Engineer), Mr. R. Kaufman (Architect to the Palestinian Land Development Co.) and two gentlemen appointed by the Haifa Business Centre.

Designs should be sent to the Haifa Business Centre (Co-operative Society, Ltd.), P.O.B. 176.

Competitors' plans must reach the above address not later than May 15, 1923. Full particulars can be obtained from Mr. A. Rosenbaum, 77, Great Russell Street, London, W.C.1. Drawings and plans giving particulars of the proposed business quarters may be obtained on sending a deposit of 10s. This deposit will be returned to each competitor on the receipt of his designs.

"The Architect" Fifty Years Ago.

MARCH 1, 1873.

THE QUANTITIES OF THE NEW LAW COURTS.

Twenty-one of the leading contractors of the day, from London, from the North, and from Ireland, are now engaged upon the estimates for these works, which are to be delivered, if no postponement takes place, on the 15th inst.; and we are, therefore, able to give our readers an approximate idea of the extent of the various requirements. The quantities, as now in the hands of the contractors, are in four sets of bills—one for the central hall; one for the buildings immediately surrounding the central hall, and called the central block, with the frontages in the Strand and Carey Street; this range of buildings surrounds the central hall on every side. Eastward and westward are a further range; these are described as the buildings east and west of central block, and are comprised in a third set of quantities. One amount is to be quoted with various alternative estimates in detail for these three sets. A detached range of buildings on the Bell Yard side form the fourth set, and will be tendered for in a separate amount; there seems to be a general understanding, however, that one contractor will be selected to carry out the whole undertaking. When we consider that several years will be required for the execution of the works, the uncertain state of the labour market and the rapid rise of many prices during the last twelve months (we especially specify iron and glass), a perusal of the large figures we shall quote in the sequel will show that no ordinary judgment will be required in making so large an estimate, in which so many contingencies have to be considered. When we say that the bills of quantities for the eastern block alone comprise 450 pages of foolscap, lithographed bills of parcels, as they may be termed, and those for the central block 370 pages, it is evident that anything like a complete abstract is out of the question within the limits of an article; all we pretend to do is to give more or less correctly such an enumeration of the leading articles in each trade as will enable our readers to form a fair notion of the general extent of the works, and an expert in estimating will define with tolerable accuracy the work to be done. We shall deal with the various trades *seriatim*. In the course of last season, in a short notice of the foundations, we gave a general idea of their depth and extent, this portion of the works having been already carried out by Messrs. Dove, of Islington. There are some small and unimportant additional matters, under the head of "excavation," in the present contracts which we may pass with this remark.

The Glasgow Institute of Architects have suggested to the Glasgow Corporation that three architects of eminence be co-opted by the Corporation Committee when engaged on the adjudication of the plans of the Oswald Street Bridge, to act as advisers on the question of design. The letter was remitted to the Special Sub-Committee on the bridge, as was also a letter from a firm who asked to be appointed measurers in connection with the construction of the bridge.

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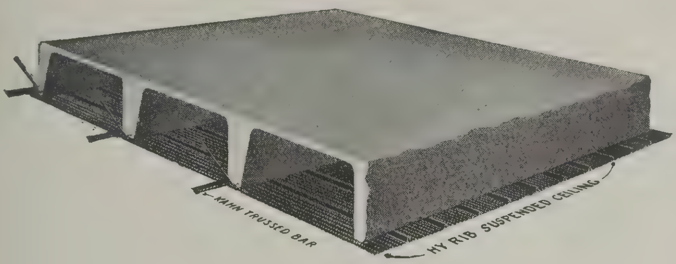

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Messrs. W. H. Gaze & Sons, Ltd., have the honour to inform Architects that the constructional and decorative work necessary to convert this historic Buckinghamshire mansion into a great public School has been entrusted to them.
The Architect is Clough Williams-Ellis, Esq., 22 South Eaton Place, London, S.W.1.

Stowe House: the South front.

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Birmingham Architectural Association.

The Annual Dinner was held at the Midland Hotel on February 2, when sixty members and friends were present. Mr. Paul Waterhouse, F.R.I.B.A., was the guest of the evening, and amongst the other guests were the Lord Mayor of Birmingham (Alderman David Davis), the Principal of the University, the Chairman of the Public Works Committee, the City Engineer, and the Presidents of six of the Allied Societies.

The chair was taken by Mr. Rupert Savage, F.R.I.B.A., who, in briefly proposing the toast of the R.I.B.A., alluded to the great amount of time and the very hard work which Mr. P. Waterhouse put in as President, more particularly in his efforts to keep in touch with the Allied Societies.

Mr. Waterhouse, in reply, expressed his pleasure in again coming to Birmingham, and at meeting so many of the Presidents of other Allied Societies. He also referred to the question of registration, and said that with regard to unification they all thought that it was a good thing in itself, and one worth having even if nothing further was achieved, because it was only a reasonable condition precedent to registration which they were all after. If there was a party in the Institute that thought that mere production of a draft Bill was in itself an achievement he thought that party was mistaken. The Institute, he added, was marching forward. It was a big concern—too big, in fact, to be destroyed by a family quarrel. It had accomplished excellent work on behalf of the profession, and it was a pleasure to see men who lived outside London taking such a prominent part in its activities.

The toast to the City of Birmingham was proposed by Mr. H. T. Buckland, F.R.I.B.A. He referred to certain articles on the Architecture of London Streets which Mr. G. Bernard Shaw had contributed to a certain journal, and essayed an attempt to imagine what would be the same gentleman's comments on Birmingham.

The Lord Mayor, in replying to the toast, remarked that, happily, Mr. G. Bernard Shaw was not a citizen of Birmingham, and in spite of anything which might be said, the city was alive and progressing. At the same time, he was inclined to ask if there was sufficient fellowship between the citizens as a whole and their governing authorities. Would it not be better if the citizens recognised that there was a partnership between the Council of the city and themselves ? He suggested that members of the Association were in a position to make suggestions which might benefit the city as a whole. It was a city that was worth serving, but he did not pretend that it was perfect, and they needed help from all those who were capable of helping. There was one subject upon which they could help—namely, housing. They were all in agreement as to the terrible condition which prevailed in Birmingham at the present time. The State-aided scheme had come to an end none too soon. It had been, in his opinion, a distinct failure. It had not provided the number of houses required, and they were now told it was impossible to provide houses for the working classes for which an economic rent could be obtained. A scheme had been put to him by a builder who had suggested that, as the working classes were unable to pay what would be an economic rent as well as the rates, it would be possible to erect houses at a rental within their means provided they were not required to pay rates. He believed—he might be wrong—that the suggestion would to a large extent provide a solution of the problem. If no houses were built, the Corporation could receive no rates, but if the houses were built and no rates were paid, the Corporation would not be any the worse off. Might it not be possible for them to forgo the rates for a period of five years, to accept half-rates for a further five and then to levy full rates. Under these conditions houses could be let at an economic rent, and he thought it was a suggestion which deserved the closest consideration.

Councillor S. T. Talbot, proposing the toast of the "Association," alluded to the movement which had for its aim the architectural improvement of great cities. Town planning, an offspring of this movement, was fraught with great possibilities. There was a movement in the city, headed by the Civic Society, which sought to popularise art, and lectures were delivered upon civic responsibilities. All these things showed an awakening of the public consciousness which, if wisely directed, would produce valuable results. Somebody had stated that Birmingham was an industrial city, and that every yard of it should be built upon. Whoever made that suggestion was not an architect. That was a spirit they must fight against.

Mr. J. A. Crouch, in reply, remarked upon the proverbial modesty of architects, and particularly of the B.A.A., and said that it seemed to him that such a gathering as this and the presence of the Lord Mayor and other distinguished guests that the Association was beginning to loose some of its modesty. That it still retained a large measure, however, was shown by the fact that he was the first to mention this evening that it was the occasion of their Jubilee, of which, indeed, very little fuss had been made.

Mr. Holland W. Hobbiss, A.R.I.B.A., Vice-President of the B.A.A., proposed the toast of the Visitors, briefly reciting their names and welcoming each one on behalf of the B.A.A.

The toast was responded to by Mr. C. Grant Robertson, M.A., C.V.O., Principal of the Birmingham University, who expressed surprise at having been allowed to be present at such a gathering after the paper which he delivered to the Association a short time ago. He remarked that of all the arts and professions, architecture seemed to be pre-eminently the one in which every layman considered he knew better than the professional practitioner. The University which he represented was a great one, but with one grave deficiency which they must endeavour to remedy. He referred to the fact that there was at present practically no recognition of the fine arts—a great loss to the city and to the University—and he looked forward to the day when this would be remedied with more than one professorship. The University was most noted for its great school of engineering, but such a school was incomplete if it did not include the study of architecture and the fine arts generally—a study which could only be neglected by either the city or the University at great peril to themselves. If Liverpool could successfully establish their great school of Architecture, it could be done by Birmingham, but he would lay down one condition, namely, that it must be done with the help of the B.A.A. and of the R.I.B.A. The University was a civic one, and should therefore promote and help them towards the right sense of citizenship and the studies which this involves.

The toast was also responded to by Mr. Swift, President of the Birmingham Building Trade Employers' Association, and by Mr. Keay, President of the Leicester Society of Architects.

A Note on the Life of Sir Christopher Wren.

The first of five Thursday afternoon public lectures was given on February 22, by Mr. J. Alfred Gotch, F.R.I.B.A., F.S.A., who spoke on the personal side of the great architect.

"Some men are born great, some achieve greatness, and some have greatness thrust upon them," was said by a clever waiting-woman in a letter that brought disaster on Malvolio. Of Sir Christopher Wren it might be claimed that he obtained distinction by all three methods in the noble fields of Philosophy and Art. Wren was remarkable from his infancy upwards. Before he became an architect his genius had been displayed in many directions ; in scholarship, in mathematics, in astronomy, in experimental philosophy, in some departments of medicine. Only in literature and music had he not made a mark.

It was noteworthy throughout the records of his life how little the political upheavals of the time affected his doings or his steady pursuit of science. Towards the close of 1661 he was sent for by Charles II. to assist Sir John Denham, the Surveyor-General of His Majesty's Works, who was, in Evelyn's opinion, a better poet than architect. So far as is known Wren had not hitherto turned his attention to architecture in any practical way. But he proved quite equal to the occasion and soon became engaged in the difficult task of endeavouring to decide what measures ought to be taken to preserve Old St. Paul's. From henceforward the main current of his life was deeply affected by the connection with architecture which was now forced upon him. So deeply, indeed, that his fame as an architect has obscured, in the eye of the world, his fame as a man of science. Yet he was a scientist of European fame comparable with Harvey and Newton. One of the most notable steps he took to qualify for his new duties was a journey to France in 1665. His French studies had some influence on his own design, but taken as a whole his work is characteristic of himself and is thoroughly English in feeling. English, that is, of his own creation, for he had no great store of English precedents to guide him.

After acting some years as Deputy Surveyor-General, he received the appointment in 1669 of Surveyor to the Royal Buildings. Judging by their experience in architecture, either Webb or Hugh May was better fitted than Wren, but that "worthy man" was outside the ordinary standards, and he more than justified his appointment.

Few glimpses of his private life are vouchsafed to us. Of his courtship with Faith Coghill but one incident is recorded ; of his married life nothing at all, save the birth of two sons. Rather less than six years after her marriage Lady Wren died, her absence being as little noted as her presence. In 1677 Wren married Jane, daughter of the second Lord Fitzwilliam. She lived but two years and a half, leaving a daughter Jane and a delicate baby, William. Beyond the love-letter to his first wife there are preserved but two letters of Wren (in English). These have merely a private interest and were both written to his son

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Christopher on occasions when he was abroad, in a strain of fatherly affection and advice. His disposition was pious, as was shown when he issued his edict against swearing by workmen who were engaged on the building of St. Paul's, and he realised that Protestantism was the religion of the land. All his churches were planned with the new order of things in view, and for which no precedent was to be found in England.

The Duke of York's Interest in Fibrocement.

On Thursday, February 15, H.R.H. the Duke of York, K.G., who was attended by Wing Commander Louis Greig, paid a visit in his capacity of the President of the Industrial Welfare Society to the British Fibrocement Works, Ltd., at Erith, Kent, manufacturers of asbestos-cement slates and corrugated sheets and other asbestos products.

His Royal Highness was received by the directors, Messrs. Fred Beadle, J.P., and G. H. Buxton. After some presentations had been made, the Duke, accompanied by these two directors, made a detailed inspection of the various departments, and in some of the shops himself worked various parts of the machinery which is used in the manufacture of "Fibrent" materials. Considerable interest was taken by the Duke in the various classes of the building industry for which "Fibrent" asbestos cement can be used, and he was shown the process of manufacture, beginning with a rock of asbestos to the completed articles.

THE DUKE OF YORK VISITING THE BRITISH FIBROCEMENT WORKS.

As is his custom on these visits, the Duke of York talked to every worker with whom he came in contact. Before completing his tour he inspected the summer swimming baths and the tennis court (with its fibro wind screens) and other means of recreation provided for the staff, and expressed great satisfaction that so much appeared to be provided for the welfare of the workpeople.

The Lewbart Disinfector.

The disinfection of lavatories, urinals, etc., has for many years been made the subject of experiment. But not much success rewarded those efforts. There has recently come to us from South Africa a disinfector which has achieved something more than a local reputation, and which has been carefully designed to obviate the serious defects which marked the many disinfectant devices introduced in the past.

The "Lewbart" requires no skill in fixing it to the down pipe leading from the cistern to the lavatory. When fixed it should last as long or longer than the cistern itself. The container holds sufficient disinfecting fluid to disinfect the pan some 1,400 times, and when empty a new one can be obtained at the stores, chemists, or ironmongers. A glance at its window panel shows whether the container is empty or not. Only five drops (minims) are released when the lavatory chain is pulled, and that quantity is thoroughly mixed with 7 oz. of the water passing down the pipe. This disinfector only enters the pan *after* the flush has taken place, and as the mixing apparatus is thoroughly efficient, no discoloration of the pan can occur. There is nothing in the whole apparatus that will give trouble to the user. It is impossible for the few working parts to wear out, and the device is really and truly automatic. If the chain is pulled, and water is in the cistern, it cannot fail to release the given quantity of fluid, thoroughly mix it, and discharge the mixture into the pan after the flush every time.

The Lewbart Disinfector was first introduced in South Africa, where it won the unstinted approval of the Government and municipal authorities, and has been in constantly increasingly demand. Dysentery was reduced by over 80 per cent. in the large South African towns where it was employed.

Many architects are now specifying it to be fitted in new buildings, and there can be no doubt that it will give a new sense of comfort not only in every home, but in factory, office, hotel, and wherever the many congregate.

The proprietors are the Lewbart Manufacturing Co., Ltd., of 2 and 3 Norfolk Street, Strand, from whom any further information can be obtained. The apparatus is sold retail at thirty-five shillings.

Recent Excavations.

A course of lectures on Recent Excavations in Mesopotamia, Egypt and the Mediterranean, showing the evolution of Architecture and Art from about 4000 B.C. to the beginning of the early Christian period, will be given by Claire Gaudet (Lecturer and Examiner in Art to the London County Council) at the British Museum (by kind permission of the Director and Trustees) on Thursdays, at 3.15 p.m. The opening lecture was on Thursday, March 1.

The aim attempted in these lectures is to trace from the very beginning the various stages of architectural expression as they evolved from East to West, taking the earliest known civilization as shown by the excavations and discoveries made during the last few years.

As nearly as possible the subject will begin with the contemporaneous civilization of Mesopotamia, Egypt and the Mediterranean from about 4000 to 1200 B.C. The treatment will not be purely technical throughout, but will be framed upon archæological and historical outlines, and include, where opportunity offers, the Arts and Crafts of the people. As the styles develop so will they be treated in fuller detail in order that the student may gain a deeper understanding of the various architectural forms surviving in our own Art, and evolving at the present time.

Particulars can be obtained from the Hon. Secretary, 120, Cheyne Walk, Chelsea.

General.

Plans have been submitted to the local authority for the laying out of a garden suburb of 200 houses at Ditton, opposite Hampton Court Palace.

Sir Aston Webb, P.R.A., is preparing plans for the proposed building to accommodate 100 beds at the Kensington, Fulham and Chelsea Hospital.

Mr. Gerald McMichael, A.R.I.B.A., is the architect for the branch of the Birmingham Municipal Bank which is about to be erected in Handsworth.

Greenwich Borough Council are abandoning a proposal for a new town hall, but are proceeding with a scheme for baths and wash-houses at a cost of £50,000.

The Whitley and Monkseaton Urban District Council at their last meeting approved plans for fifty-three houses at Whitley Bay and a Wesleyan church at Monkseaton.

Mr. J. Austen Laird, Lic.R.I.B.A., Glasgow, has prepared the plans for premises to be erected in West Blackhall Street, Greenock, for Messrs. T. MacKay & Sons.

The Thurnscoe Urban District Council are contemplating the execution of a new scheme of sewerage and sewage disposal for the district which is estimated to cost about £24,000.

A garden suburb is proposed for Alexandria. A site between Cleopatra and Sidi Gaber has been secured, and is being laid out by Mr. G. A. Loria, architect, 8, Rue Nebi Daniel, Alexandria.

Mr. E. J. Silcock, M.Inst.C.E., F.S.I., etc., consulting engineer, of 17, Victoria Street, London, and 10 Park Row, Leeds, asks us to announce that his London address is now 25 Victoria Street, Westminster, S.W.1.

The Weston-super-Mare Urban District Council have approved plans for alterations and additions to the Council offices, &c., at the Town Hall, as prepared by Mr. P. G. Fry, in conjunction with the surveyor. The estimated cost of the scheme is £14,000.

Mr. Peter Stuart, of Brighton and Edinburgh, the inventor of Granolithic paving and building blocks, popularly known as the "Granolithic King," left personal estate in Great Britain valued at £3,619, of which his holding in Stuart's Granolithic Company amounts to £2,208.

Judgment with costs was given against Belfast Corporation last week in a Chancery suit in which Herbert Quin, barrister-at-law, and chairman of the Belfast Branch of the British Empire Union, sought an injunction to restrain the Corporation from paying rates of wages to labourers on a housing scheme higher than the standing rate laid down in the Standing Orders. Thousands of pounds are involved in the decision.

OL. CIX.—2829. MARCH 9, 1923

THE ARCHITECT

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A Housing Policy.

We have been reluctantly convinced that the Iousing Policy of the new Government is as questionble in principle as that of its predecessor, while it has ot the grandeur of a political crime of the first magniude, which is the term we should use to describe the xperimental legislation of the late Premier and Dr. ddison. What is being promised to us seems to be educed speed when travelling in the wrong direction, vhereas what is necessary is that the direction of our olicy should be completely reversed. Our Governnents have been backing the wrong horse ever since 910 and are not going to make headway by the very imple device of reducing the amount of their stakes. t should be evident to them that by so doing they can lease no one. Enthusiastic extremists will look upon heir proposals as quite inadequate, while those opposed o them will not see in them any evidence of repenance.

Yet the main facts are admitted by almost everyody, the first being that more houses are required, the econd that the taxpayer cannot be expected to provide vhat is wanted at a loss. There is therefore only one neans of obtaining what is required, and that is by elying on private enterprise. But public confidence in he intentions of the Government is absolutely necesary if private enterprise is again to be brought into lay, and the speculator will not spend his money until t is made quite clear that he will not have to compete vith State-aided housing and will be left entirely free o obtain the best rent he can get in the open market.

These conditions obtained before the late disastrous xperiments, for although the municipalities carried ut housing schemes in the past here and there, they vere limited in extent as they were coupled with the bligation to find the whole and not only a small ortion of the money required from local rates. The ondon County Council set an admirable example in his matter, for their schemes were based on absoıtely sound finance and involved a sinking fund by vhich the capital expenditure was gradually liquidated. Iore than this, their schemes were, when compared vith the population of London, very small in their umber and scope. What was done was to build here nd there a collection of houses which represented the sult of a close study of housing requirements and t a standard which affected private speculators who rovided the great bulk of the houses required. Local uilding bye-laws, coupled with the adoption and lministration of the Housing and Town Planning Act, ade it possible for every district to prevent the uilding up of new slum districts, and housing was ing improved decade by decade till it more or less pproximated with reasonable requirements, and this thout any aid from the taxpayer.

We quite admit that, having brought about a great il by adopting a wrong policy, Government must do ore than it otherwise need have done, but our point that it must do so by offering the utmost inducements private speculators, who have been dealt with most reasonably.

The first inducement should take the form of an act of justice. We allude to the treatment of those property owners who have for years been forced to take rents which are lower than those they could obtain in the open market. If immediate decontrol is, as seems to be universally held, impossible, it is possible for Government to compensate the owners of controlled property while the period of control lasts. Even if the amount of compensation granted only partially made up the difference between the rents paid and those which could be obtained in the open market, this step would produce a feeling of confidence which cannot otherwise exist and which is essential if the average speculator is to be induced to build.

The second thing needed is to make it illegal for any municipality or local authority to embark on a housing scheme except for purposes of clearing an insanitary area which cannot be showed to pay an economic rent on the capital expended. This would ensure the private speculator against unfair or one-sided competition.

The third, and most useful, reform would be to encourage the provision of housing by exempting all who provided it from rates for a term of years, and we should suggest that a term of ten years would not be too long for such a period of exemption. The income produced from rates would probably not be prejudicially affected, because without such inducements housing will probably have to be carried out at the public expense.

The fourth necessity is that the State should lend money on the cheapest economic terms to everyone who is ready to provide housing accommodation of a certain standard, and that assistance should be extended to those who are willing to buy their houses. Anything which would lead to an increase in the number of small freeholders would be of benefit to the State.

It will be seen that the only two proposals which involve the principle of a subsidy are the payment of compensation to owners whose rents are restricted—a measure of tardy justice to those who have been unfairly used—and the freeing of future housing from rating for a term of years which would, as we have said, be unlikely to affect the saleable value of any district, and that the other proposals mentioned do not involve any burden on the taxpayer.

We have become so used to expedients which would have been condemned in no sparing language by those versed in political economy that it does not surprise us in the least to find associations of owners asking for building subsidies, but we feel that such associations would be completely satisfied were it made clear to them that the evil principle of the subsidy was to be entirely eliminated in the future. Admittedly, if subsidies are to be paid they should be paid to public bodies and private individuals alike and on the same basis, but it is clear to us that they should, in the interests of all, be withheld from all.

It is clear to us that a Conservative Government should not remain satisfied by pruning down Socialistic legislation, but should revert to the promulgation of principles to which it professes allegiance, and it is also clear that the partial and half-hearted watering down of extreme proposals is not likely to arouse enthusiasm from any section of voters.

We sometimes hear it claimed that politics are a matter of expediency rather than of action based on conviction, but may it not be true that occasionally justice and common sense may be more expedient than anything else? We cannot always be distributing favours and preferential treatment to everyone, and recent by-elections show the almost insuperable difficulties anyone may be placed into by an endeavour to placate different classes at the same time. We can at least try to do justice to all, but we obviously must fail if we try to please one section by giving what we withhold from another.

Is it too much to hope that those who have had experience of the difficulties of a dilemma should recast their policy on entirely different lines; if they did so their position might be assailed, but they would have a clear and strongly marked line of defence to fall back on.

Our Illustrations.

"YORK MINSTER." From a Lithographic Print by GEORGE HARRISON.

CITY OF DUBLIN NEW TOWN PLAN. ABERCROMBIE, KELLY AND KELLY, Town Planning Architects and Surveyors

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Notes and Comments.

A Difficult Point.

The County Council sanctioned the design of the Bush Building in Aldwych, the outstanding feature of which was a tower which formed the culminating point of the building and of its neighbours on either side. Now we learn that for reasons of finance the tower is to be omitted, and it is clear that without it the remainder of the building will fail as an architectural composition. It is open to us to doubt whether the building as carried out would ever have been sanctioned by the London County Council, and we should be interested to learn whether they have not the power to insist on the whole scheme being carried out, as the existing sky line is far from being satisfactory. What should be the limits of variation from an approved scheme? Presumably a tenant might wish to omit a cornice to save expense; would he or would he not be allowed to do so? We were promised a building which was to harmonise with Somerset House, but instead of this we have an awkward and somewhat clumsy series of blocks, while much of the detail, and noticeably that of the capitals of the columns on the north side facing Kingsway, leaves much to be desired. A building which is dedicated to Anglo-American friendship surely deserves a little more consideration than it has received, and it is a thousand pities that the original design, from which we hoped so much, should not have been carried to more successful completion.

In re Housing.

The following resolution was passed at a meeting of the Executive Committee of the National Building and Engineering Brick Federation held on February 13, 1923:—

"That in the opinion of this meeting the whole problem of the re-establishment of the house building industry, apart from that of unemployment, centres on the renewal of confidence in the investment of capital.

"It is submitted that the re-establishment of the house building industry to provide a sufficiency of houses of a present cost value not exceeding £400 is and will continue to be impracticable until the Government in co-operation with the local authorities put into operation a system of subsidies to operate until economic conditions of building costs and cost of living are brought down to a standard of reasonable permanency, and this Federation would welcome the opportunity of submitting to the Government a subsidy scheme.

"It is submitted that such re-establishment would tend to a return of confidence in the investment of capital, would encourage house provision in adequate quantity, be a considerable relief to unemployment, and reduction in national and local relief costs, would assist in removing the existing danger to national health and morality through overcrowded living conditions, would alleviate some of the despondency and anxiety consequent on unemployment, and would promote citizenship responsibility and interest by tenant ownership.

"This Federation is strongly of opinion that the facilities for tenant ownership available by the Small Dwelling Act of 1899, and the extended facilities provided by Section 49 of the Town Planning Act of 1919, are very little known to the people who might desire to become tenant owners, and that an extensive advertising of these facilities by the Government would be a worthy national service."

We think the above indicates the confusion of thought which exists on the subject of housing. If confidence is to be re-established, it is not by a widespread system of subsidies, but by the clear recognition by the authorities that those who arbitrarily interfere with the freedom of the private individual to deal with his own property in his own way and on his own terms should pay him compensation. If this were recognised and acted upon, there would, in our view be little need for subsidies.

Glazed M aterial.

Mr. Clynes in his advocacy of the use of glazed materials for our streets appears to have overlooked the fact that the cost of carrying out his proposals would in many cases be prohibitive. Perhaps he would say that the question of finance does not interest him, and, if so, he would be quite in accordance with the party to which he belongs, one of the tenets of which seems to be that what Labour desire should be provided, and the cost should be borne by others. But the average man will probably find his enthusiasm damped by the difference in cost between a building carried out in glazed and unglazed materials.

The Threatened Strike.

We all hope that a strike in the building trade will b averted. It is difficult to arrive at a clear estimate of th position from what we read in the daily press. All we hav to go on is our belief that both contractors and workme must by now realise what a fatal thing a strike at th present time would be, and we trust that, in spite of inflam matory statements at meetings, both parties will in the en settle their differences in an amicable manner. It is certai that the party which precipitates a struggle will lose th sympathy and support of the public.

The Architecture Club's Exhibition.

The collection of examples of current architectur design which the Architecture Club have gathered togethe is without question the finest ever collected here, and bot in quantity and quality is more remarkable than that hel under the auspices of the Royal Institute of Britis

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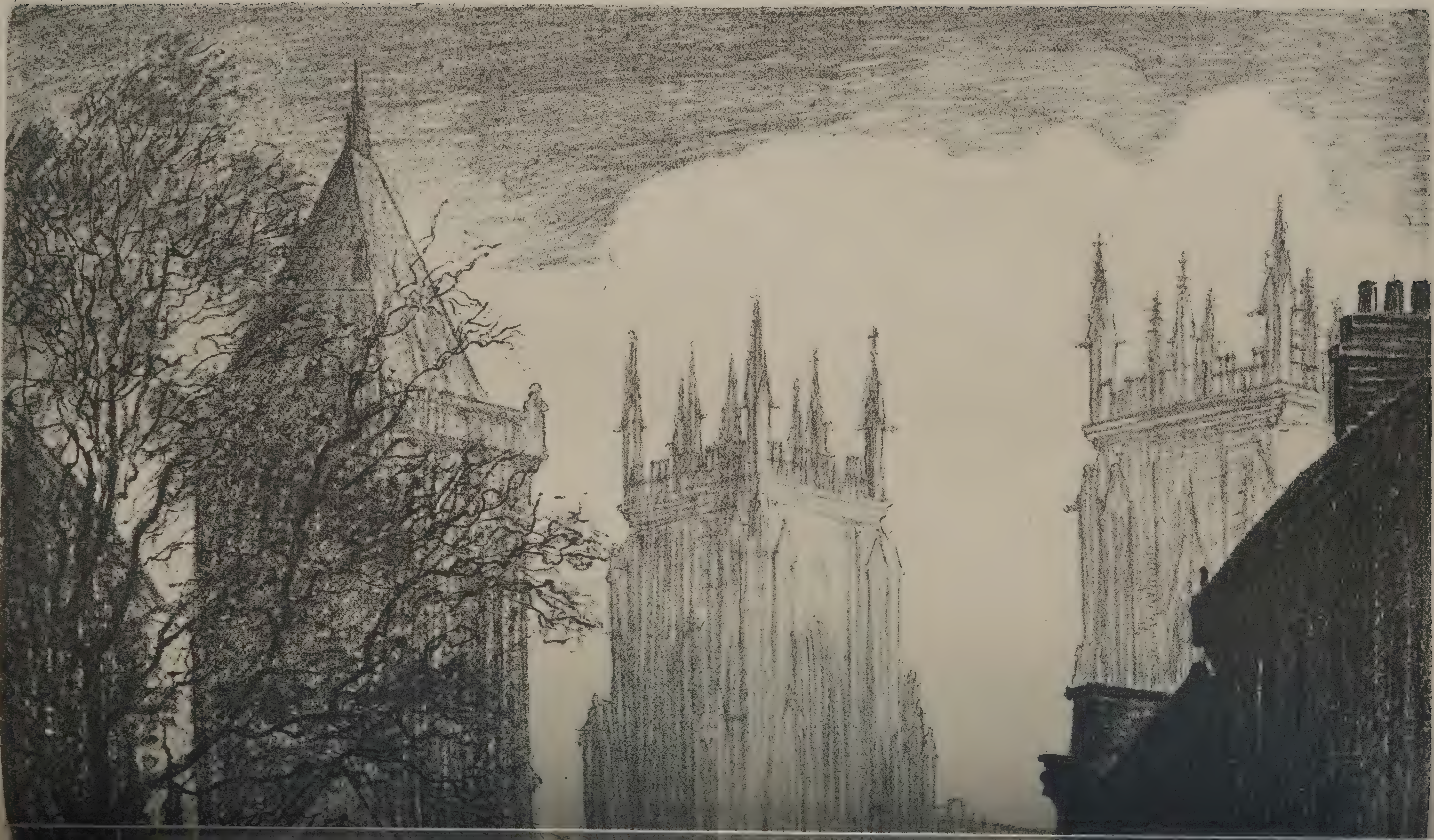

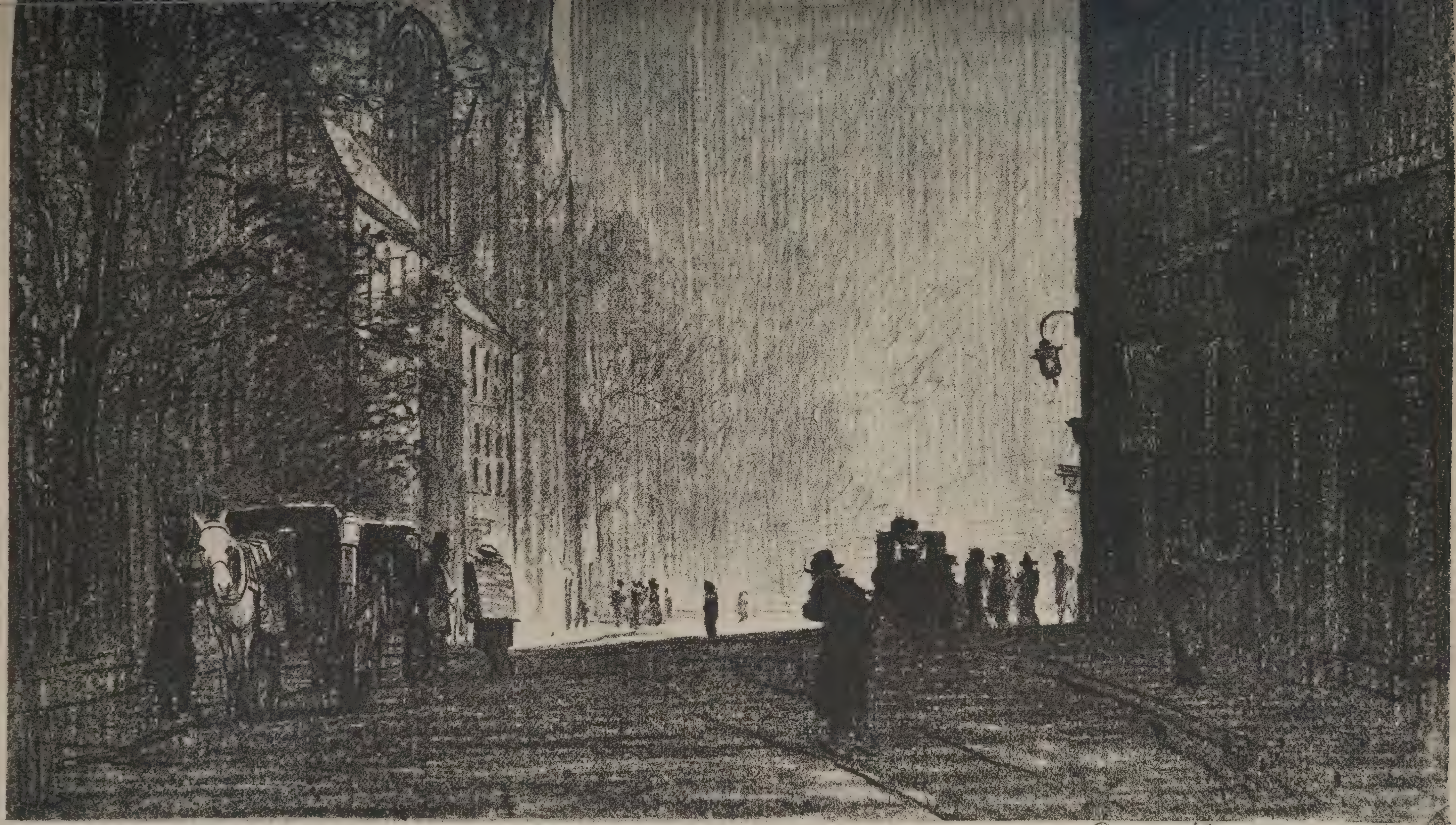

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George Harrison N°2

YORK MINSTER.

FROM A LITHOGRAPHIC PRINT BY GEORGE HARRISON.

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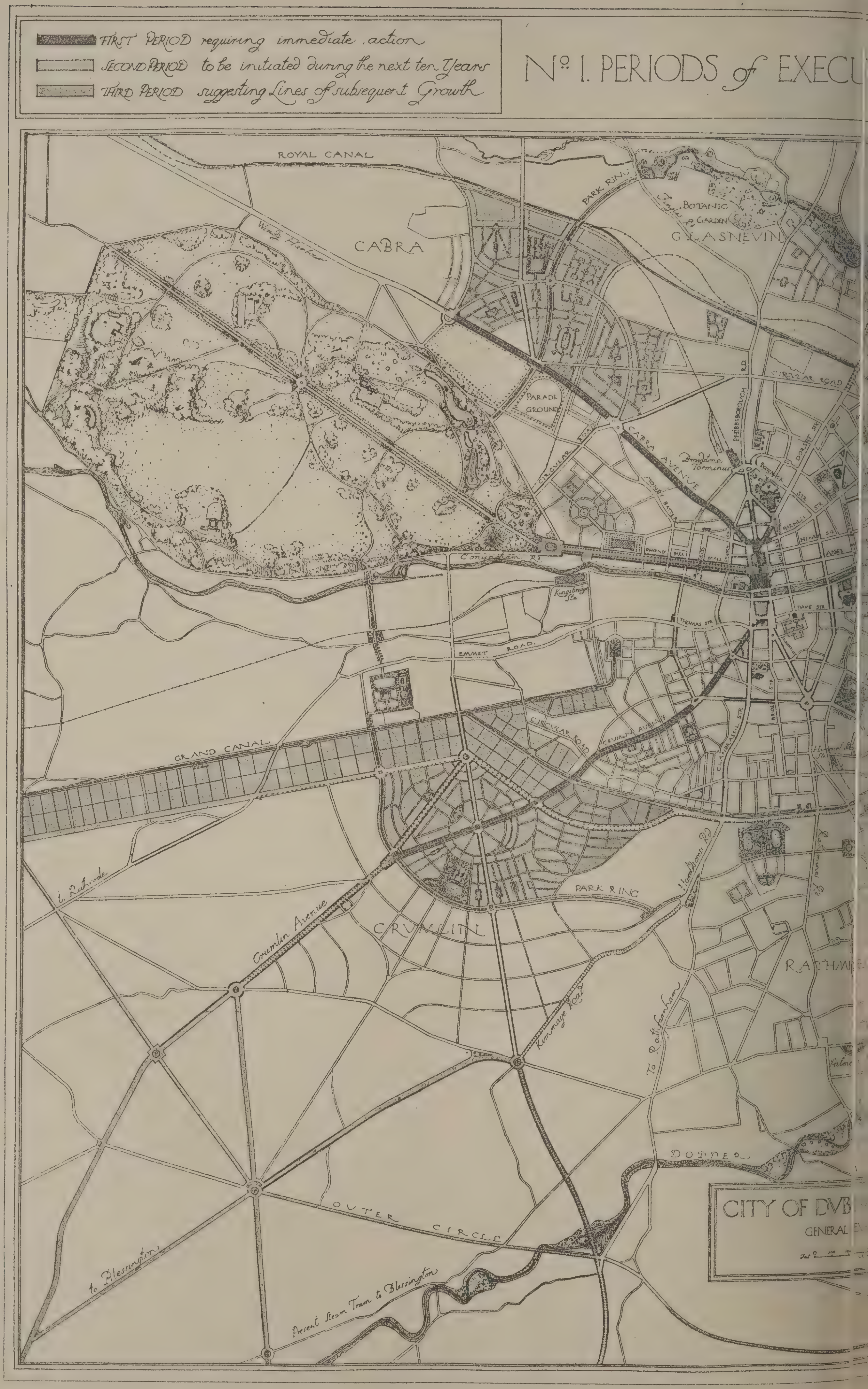
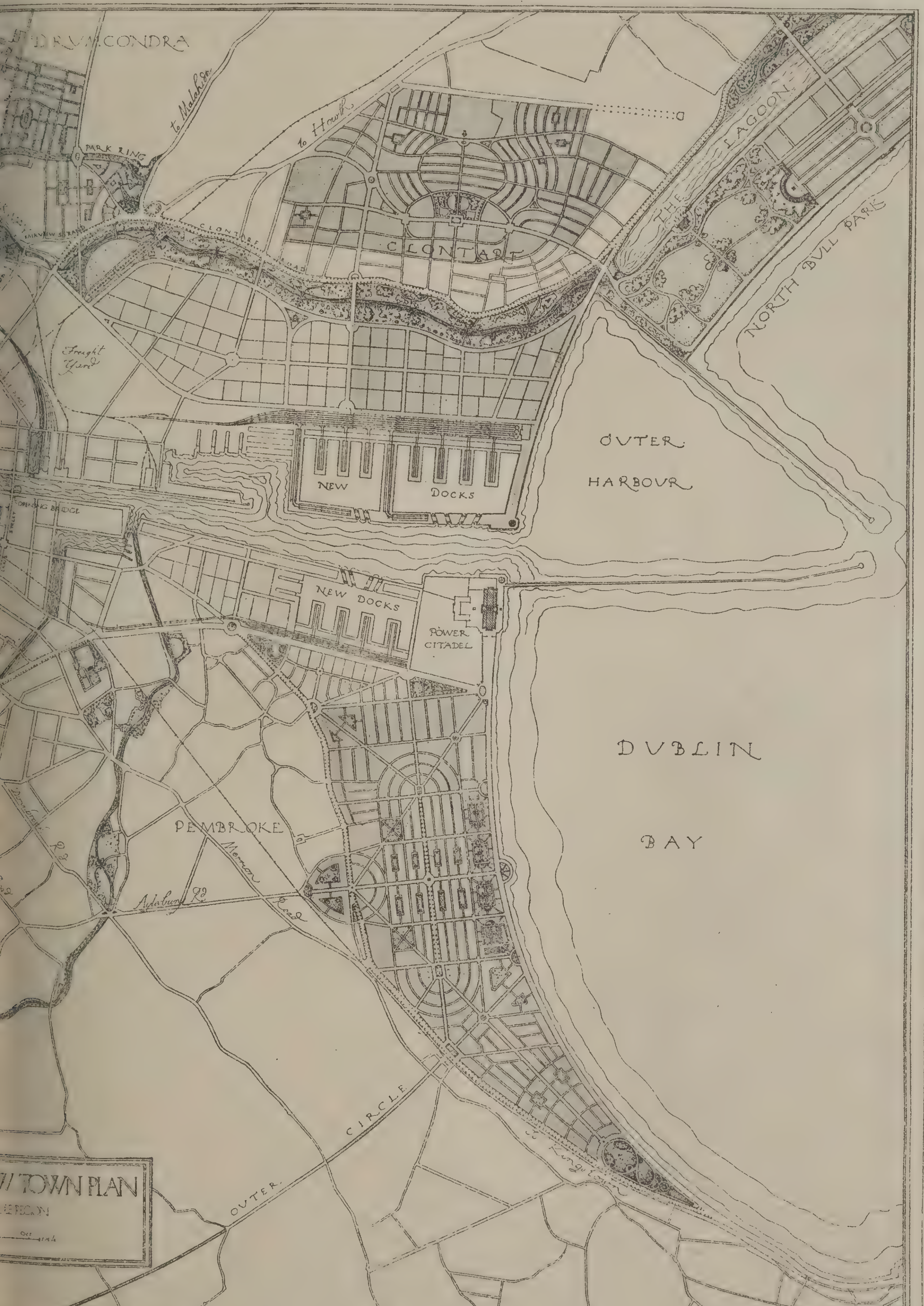


CITY OF DUBLIN
GENERAL DEVELOPM

DESIGNED BY PATRICK ABERCROMB

n 3 DEGREES of URGENCY

The Dark Red Colour indicates ROADS: the Light AREAS to be Developed
Essential Widenings are shown as NEW
Removal of Loop Line over the Liffey dotted - - - - - -



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OWN PLAN.
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ESSRS. S. & A. KELLY, SURVEYORS.

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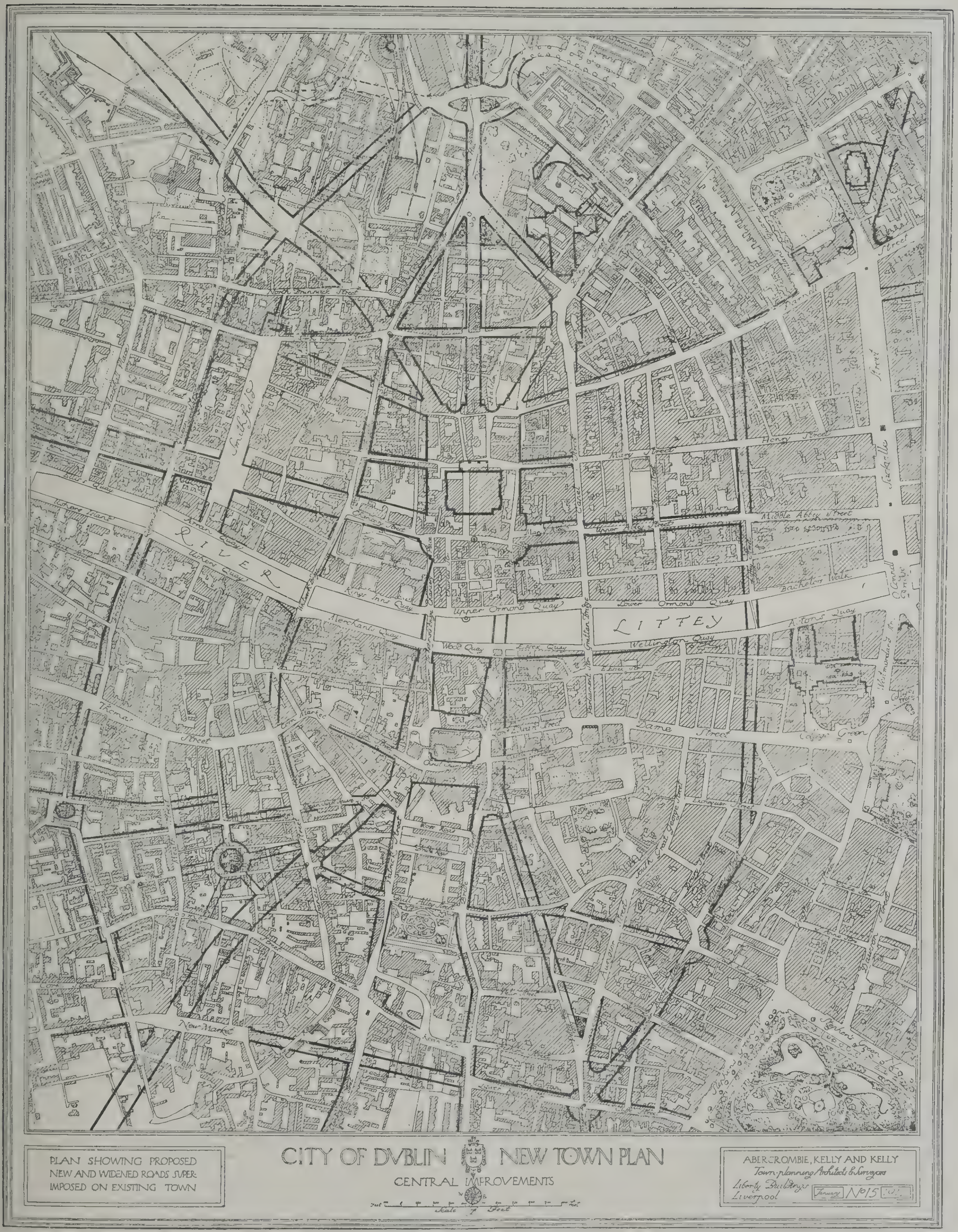
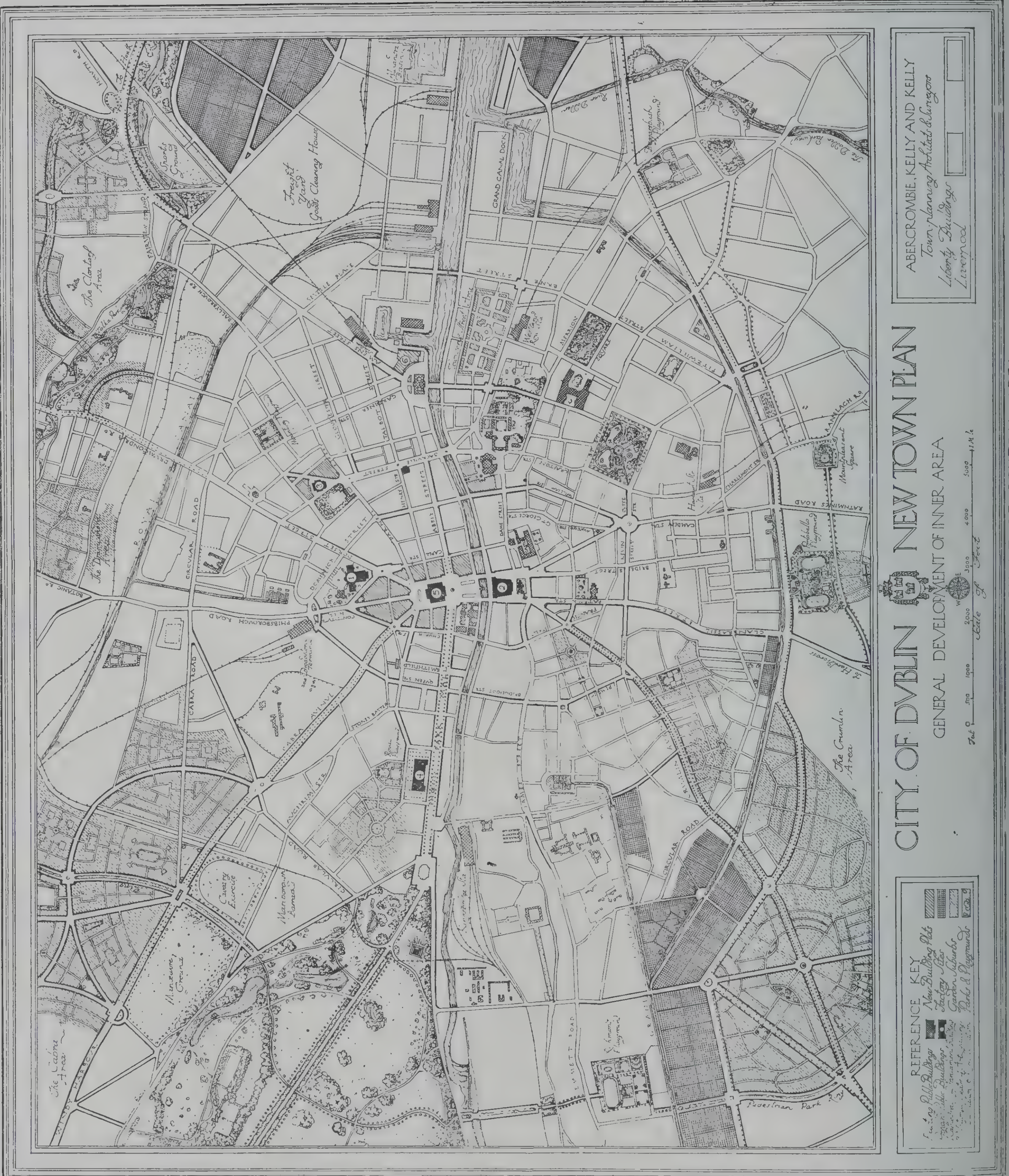
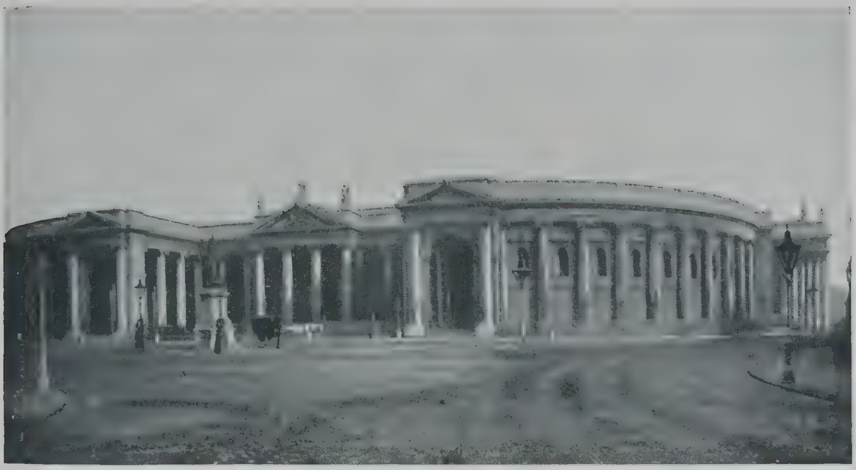


CITY OF DUBLIN NEW TOWN PLAN.

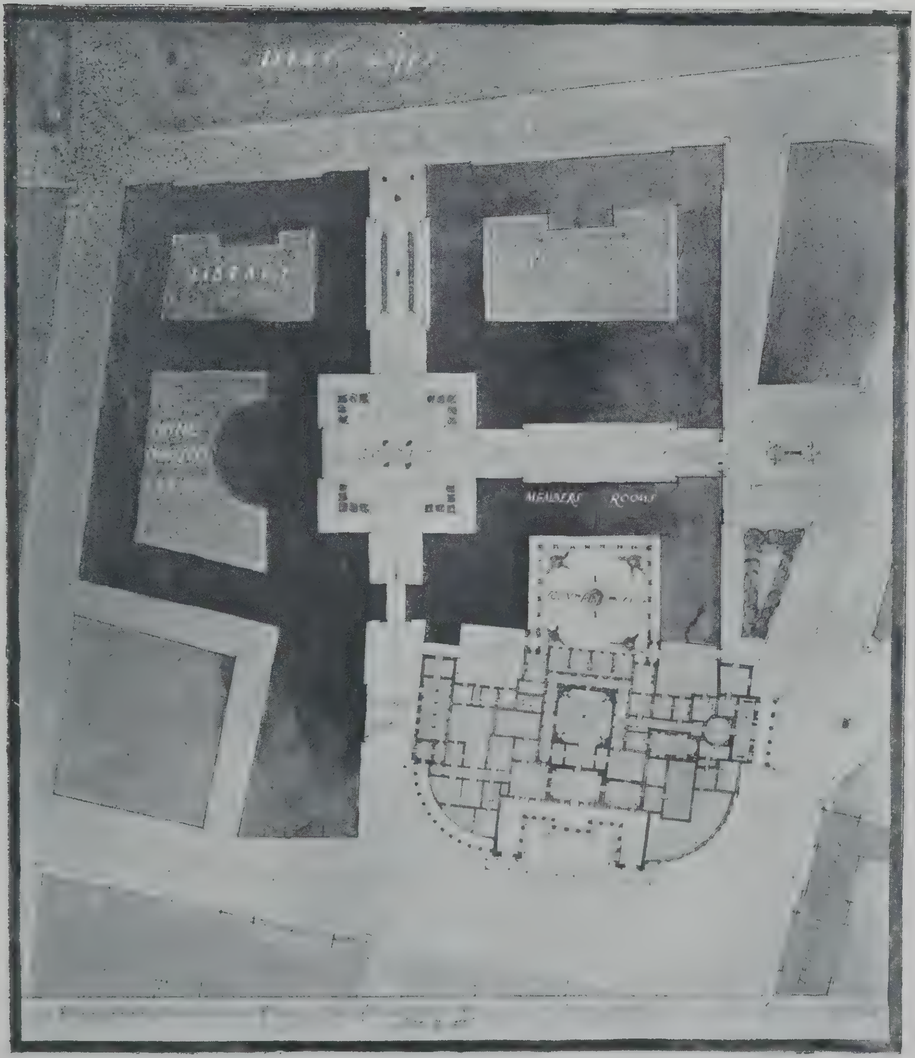
Designed by PATRICK ABERCROMBIE, Architect and Messrs. S. & A. KELLY, Surveyors.



CITY OF DUBLIN DEVELOPMENT OF CENTRAL AREA.

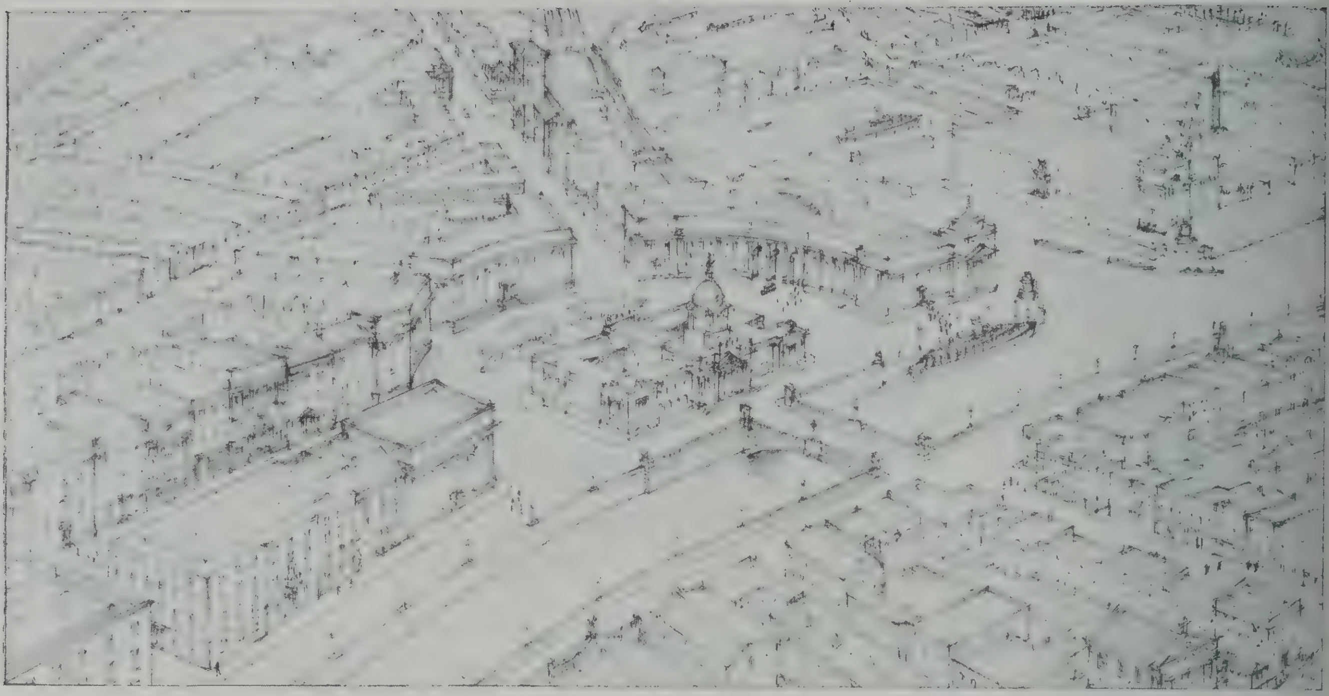


HOUSES OF PARLIAMENT NOW BANK OF ENGLAND.

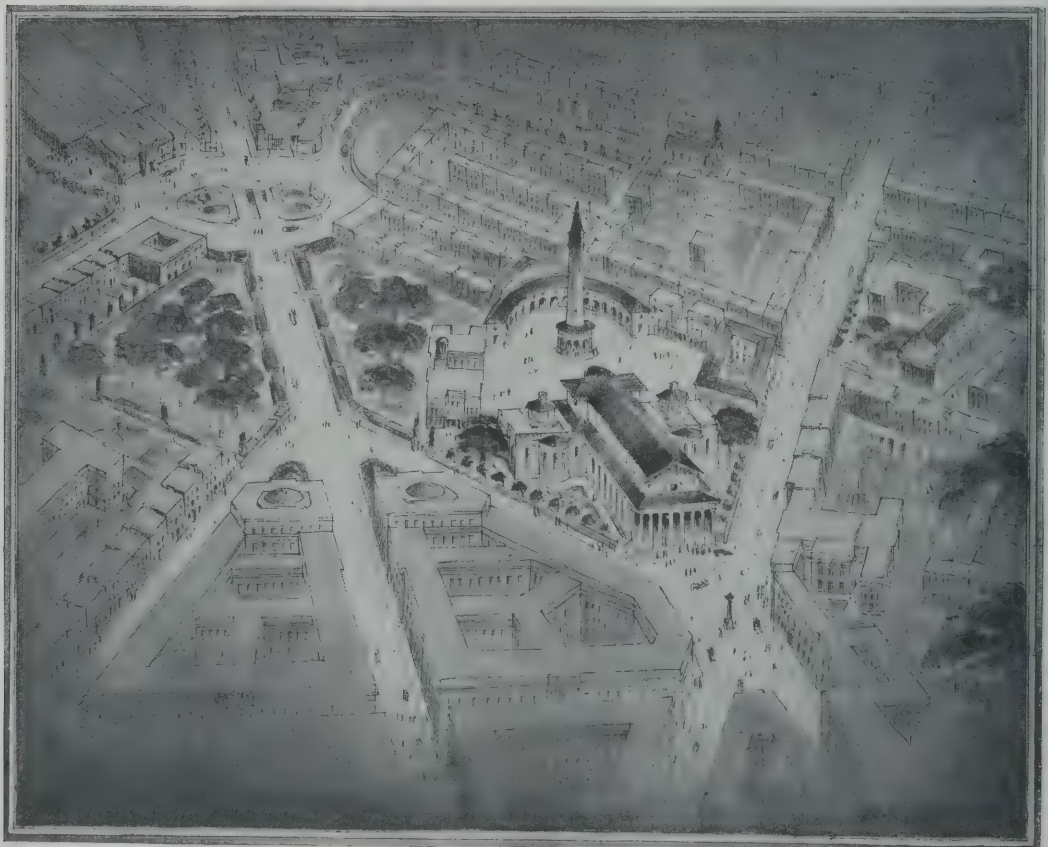


OLD HOUSES OF PARLIAMENT SHOWING POSSIBLE DEVELOPMENT IN REAR.

DESIGNED BY PATRICK ABERCROMBIE, ARCHITECT AND MESSRS. S. & A. KELLY SURVEYORS.



DUBLIN CUSTOM HOUSE CRESCENT AND RIVERSIDE STATION.



SKETCH SHOWING CATHEDRAL SITE.

Designed by PATRICK ABERCROMBIE, Architect and Messrs. S. & A. KELLY, Surveyors.

Architects. This may be in large measure due to the fact that the proprietors of "Country Life" have given every assistance in the organisation of the exhibition, and a large proportion of the Grosvenor House exhibition consists of photographs by them. We are glad to see the model of Peter Robinson's new premises, which promises to be an effectual and pleasing composition. The bulk of the works shown is of country houses, and most of our more prominent architects are represented; but we shall return to the subject at a later date; all that it is necessary to say here is that the exhibition is one which should not be missed either by architects or by that section of the public who is interested in building, for it enables one to adequately appreciate the great advance in architectural design made of late years.

The A.A. Meeting.

Mr. Gilbert Frankau greatly delighted the members of the Association by his address on Literature and Architecture. He described a writer as being like the architect and builder who has first to construct his general scheme, and then, having laid the foundations, build up a town step by step. He gave a very humorous account of the impossibility of escaping from architectural description in writing fiction, and the dilemma of the five doorways of the bedroom in a book he is writing, describing the difficulties of the hero in living on a paltry pittance of £35,000 a year. Mr. Frankau is a firm believer in individualism and a consistent opponent of socialism, a defect from which he evidently believed some of his hearers suffered. He said that our difficulties at present in the matter of housing were due not to the war or the high prices of building, but to Governmental interference with the laws of demand and supply.

Some of his critics complained that Mr. Frankau strayed from the subject into the world of politics, and Mr. Newton reminded him that housing was but a small part of the architects' subject; but in answering objections raised, Mr. Frankau very aptly said that the average man did not think of public buildings, but of the house in which he lived, and that unless this was borne in mind we should never understand the point of view of that general public which was the ultimate factor to be considered and satisfied.

"Dublin of the Future."*

We are glad that this scheme should be published in its entirety at the present time, as since the competition held in 1914 the vicissitudes of political change ended in giving Ireland a status which is liberal enough to enable Irishmen to settle down to the development of their own country.

And as we form many of our opinions about a nation at the fountain head represented by its capital, it is reasonable to suppose that the new Government of the Free State will, both from sentiment and policy, wish to expend money and energy in improving Dublin.

For this purpose finance is necessary, but it is reasonable to assume that American-Irish sentiment, which has lavished its sympathy and material help on Ireland during the past century, will not be backward in coming to the help of the new Government, if for no better reason, to show the world the manner in which Ireland can make good under her own Government freed from Anglo-Saxon control.

It is true that since the date of the competition much destruction has been wrought in Ireland and in Dublin, but fortunately the massively built works of the eighteenth century are not readily destroyed, and we learn on good authority that the damage done to the Custom House and Four Courts is only partial, and can and should be repaired. We have heard that the Irish Office of Works is inclined to adopt an attitude which is painfully reminiscent of the attitude of Mr. Ayrton, and is inclined to take the view that the damaged buildings must be demolished. Ireland has had two architectural epochs—the early Celtic civilisation, which has given it the basis for an ecclesiastical style which is indigenous to the country, and the great period of the eighteenth century, the works of which are the glory of Ireland. It would be grievous if at the commencement of a phase in her history she did not jealously preserve her greatest historical monuments.

There seems to us to be no sound reason why the scheme which was awarded first place in the competition of 1914 should not be taken as the basis for the Dublin of the Future, as it is logical, complete and well developed; nor can it be put on one side as unworthy of a capital.

The scheme outlined may be said to be divided into two parts, of which the first and most urgent is the clearance of the slums which have for long disgraced Dublin. Professor Abercrombie holds that our plans are often too local in their scope, and do not do away with the root of the evil. In dealing with the Dominick Street area, for instance, round which much slum property exists, he proposes to extend Dominick Street, cutting it through to the Liffey, so that it becomes a main thoroughfare suitable for better development, while at the same time he proposes the formation of housing areas outside the centre of the city at Clontarf, Cabra and Crumlin, and from these outlying districts broad avenues, partly formed of existing roads and partly of new ones, lead to the remodelled centre of Dublin, which is conceived on broad and imposing lines, the different roads converging not on a single focal point, but on a broad rectangle flanked by buildings at either end with avenues at either side, the north and south ends of which are connected by two bridges across the Liffey.

The existing railway stations, all disposed on the outskirts of Dublin, are connected with a central station placed at the traffic centre of the city.

Conveniently disposed ring roads give abundant traffic routes avoiding the centre area and relieving congestion.

The waterways in and round Dublin have, as the plans we give show, afforded ample means for goods traffic which does not at present exist, the whole plan showing in this and other respects the very careful manner in which the designers have avoided unnecessary expense, making the utmost use of existing roads and waterways, while a period plan which we reproduce shows the gradual stages in which it is proposed to carry out the changes contemplated.

The most radical change proposed is the reclamation of a large area to the north of the city in Dublin Bay, which it is proposed should be laid out as a park, leaving a lagoon between the park and the suburb of Clontarf, which is bounded to the south by a strip of park land along the river Tolka, which park way is continued to the north of the city almost up to Cabra, which again is bounded by the great expanse of Phœnix Park. New docks are shown on either side of the Liffey, and on the southern side of the harbour the suburb of Pembroke is shown within which it is proposed that not more than 12 houses to an acre should be allowed under the scheme of zoning proposed.

Like Professor Abercrombie's scheme for the development of the Doncaster district, every requirement of human activity has been considered and reported on, but the scheme has an interest greater than that attaching to a proposal to create a new town, since every part of the subject is invested with historical and human associations of long standing. For this reason the details of this great scheme may be matters of acute controversy, and the authors would be the last people to claim finality for the arrangements shown, but what they have done seems to us to entitle them to be considered safe advisers of the

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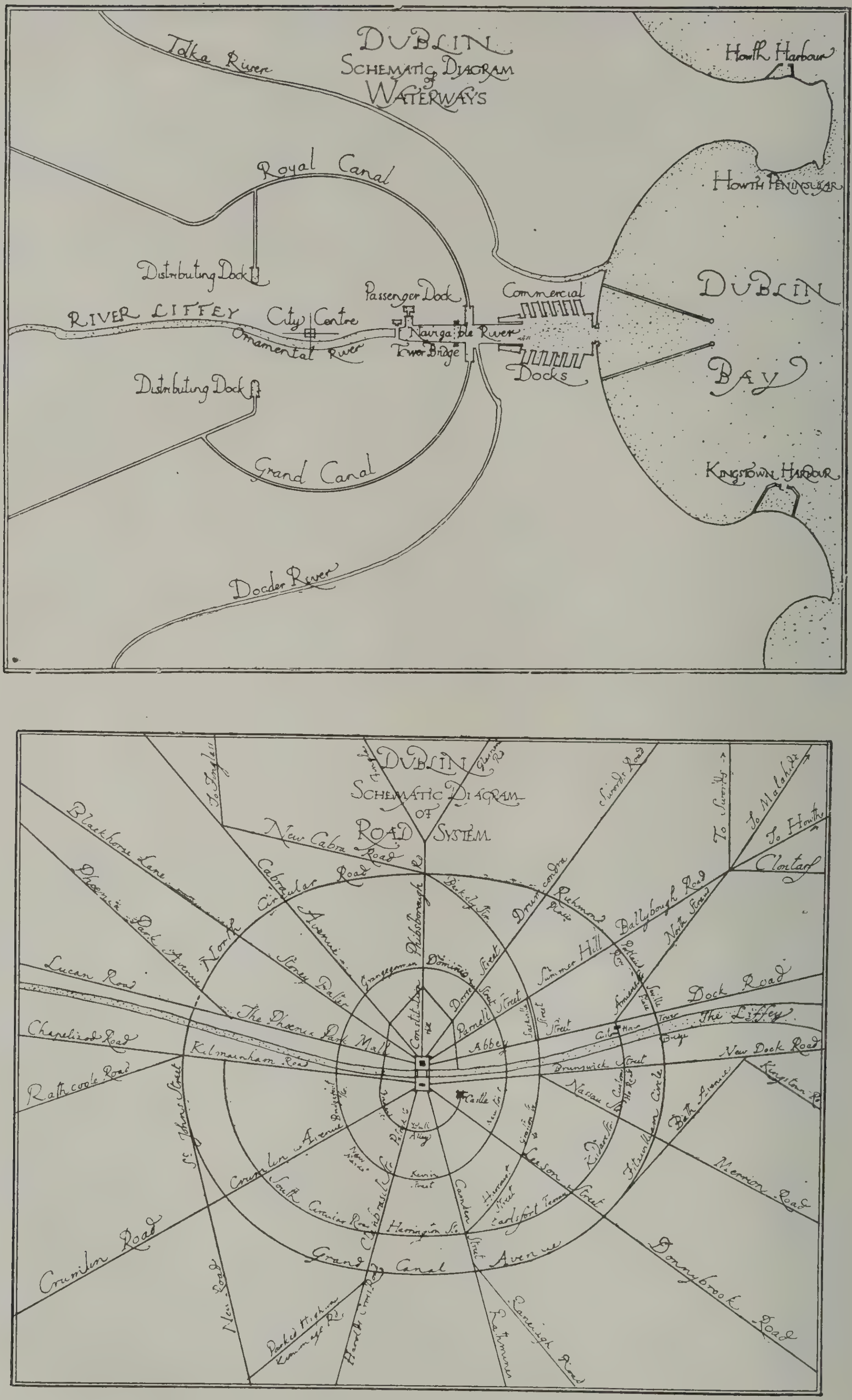
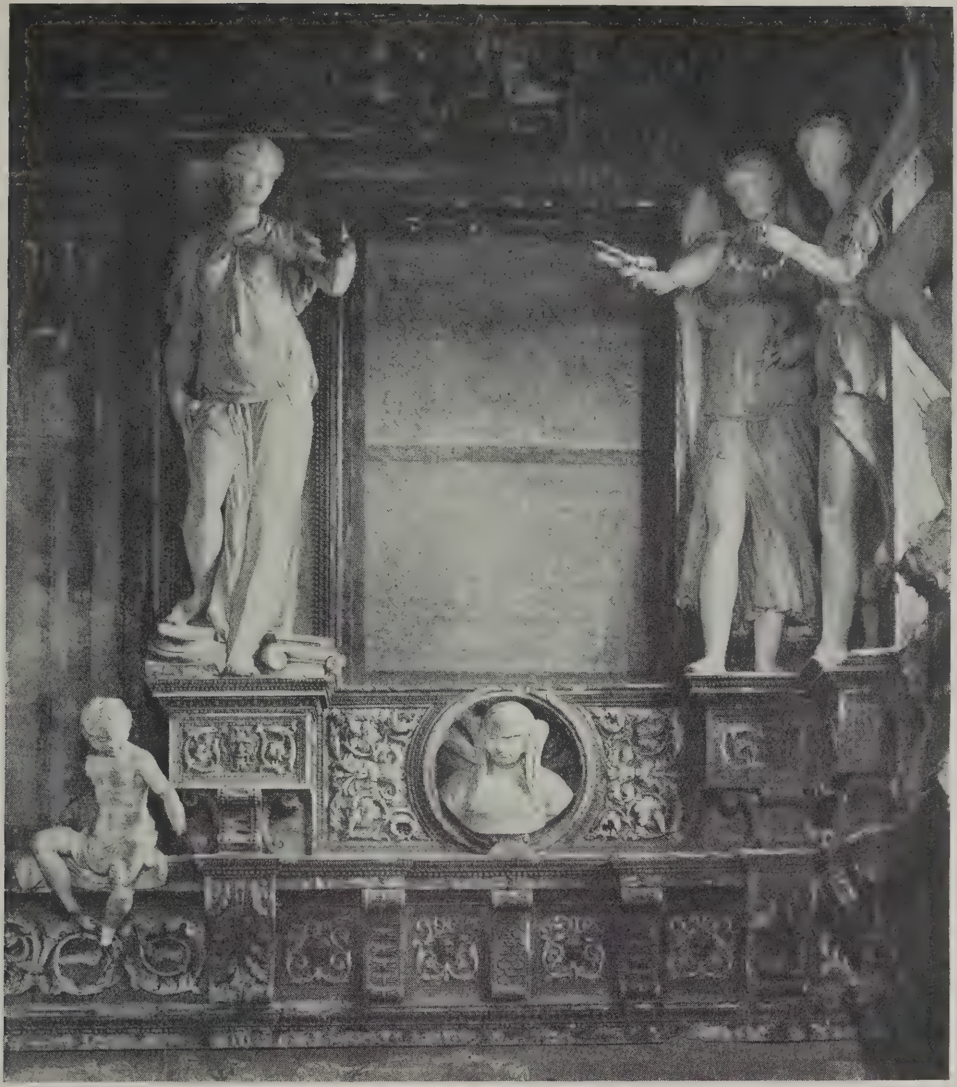
* "Dublin of the Future. The new Town Plan, being the scheme awarded the first prize in the International Competition." By Patrick Abercrombie, M.A., F.R.I.B.A., Sandney Kelly, F.S.I., and Arthur Kelly. Vol. I. of the publications of the Civics Institute of Ireland. The University Press of Liverpool and Hodder and Stoughton, Ltd., London. 21s. boards, 17s. 6d. paper, net.



GENERAL ARRANGEMENT, ROADS AND WATERWAYS.

Corporation of the City as to steps which in the near future they will inevitably have to give close attention to.

We give illustrations showing several of the building centres which have had to be carefully considered in some detail, among which we may mention the location of the proposed new cathedral, the area surrounding the former Houses of Parliament and the Customs House. All of these are instances of the very painstaking and thorough consideration given by the authors to every part of the problem they had to solve, and in the interests of architecture, which are international in their character, we hope the authors of the scheme will obtain the reward which is their due, and that Dublin may under their direction be transformed into one among the finest cities of the world.



ANGLE OF THE HALL OF THE MARQUIS IN THE DUCAL PALACE OF MANTUA (THE BUST REPRESENTS BARBARA OF BRANDENBURGH).

Mantua: Her Story in Art and Architecture.

By Selwyn Brinton, M.A.

VI.—Mantua and the Movement of Humanism.

(*All rights reserved.*)

In the last article of this series we traced the story of the duel between Milan, under the Visconti, and Mantua, under her Gonzaghi rulers, and saw that, with the death of the terrible Gian Galeazzo Visconti, the danger from Milan to the freedom of North Italy had become less immediate and menacing; we saw, too, how Francesco Gonzaga, a great Italian Condottiere, had been Captain-General of the armies of the Republic of Venice, establishing the military tradition which was long followed in this family. We get into quieter waters with the death of Francesco Gonzaga in 1407, and the marriage of his son Giovanni Francesco, in 1410, with Paola, " a daughter of the Malatesta, who was most beautiful and honest, and of whose coming there was great rejoicing, and there took place a magnificent tourney of two and forty knights, all of the Gonzaga family."

It was under this Prince, to whom the chronicler is disposed to give the character of a spendthrift, that an event took place which was of importance to the Dynasty, and also to Mantua, as commencing that connection with the German Imperial power which was to be of such moment, both for good and ill, in her later history. This event was the visit of the Emperor Sigismund to Mantua, of which her chronicler tells us that " in 1433 the Emperor Sigismondo came to Mantua, and gave the title of Marquis to Giovanni Francesco Gonzaga. . . . He gave him yet further the black eagles upon a white ground with the red cross as his shield; and to show him further kindness arranged to give the daughter of the Duke of Brandeburgh, his kinsman, to Lodovico, son of Giovan Francesco, to wife—the which kinship by marriage uplifted and ennobled greatly the House of Gonzaga." I think it will be right to see in this elevation of the Gonzaga House far more than that immediate result, or that of the collection of consequent fees and Imperial dues from a needy Emperor. Mantua, by her extraordinary natural position, was then, and still is, the great military stronghold of northern Italy, and the Emperor Sigismund, like Frederic II before him and Charles V in ages later, was no doubt fully cognisant of this fact. The four eagles of the Gonzaghi from this time onwards, with their outspread wings, which Equicola traces through Charlemagne to the eagles of the Roman Legions of Marius, were a symbol of a connection which is all important in their later history, which was to raise Mantua to become the richest and almost the greatest city in Italy, and to also lead directly to her tragic and irremediable fall.

The death of Francesco Gonzaga, first Marquis of Mantua, in 1444, led to a struggle for the lordship of Mantua between his two sons, Lodovico and Charles his brother, a man (says our chronicler) " robust of limb," who had succeeded to his father's charge of the Venetian armies. If physical force was on the side of Carlo it would seem that the brains were more than a balance for this in the case of Lodovico, who had been himself a pupil of the famous

Humanist, Vittorino da Feltre, Professor of Rhetoric at Padua, whom the Marquis Gianfrancesco had brought to Mantua to educate his children. "He was a man lettered," says here the Mantuan historian, "full of religion and adorned with the most charming manners. From the very first, besides his lodging and keep, there was assigned to him the fixed stipend of 20 scudi d'oro a month to provide for all that he might need in his honourable and heavy duties. The Marquis arranged for him in the neighbourhood of the Castello, near the Ponte S. Giorgio, a house, in the nature of a College, where there were the most delightful walks beside the lake. The house, which was called "La Giocosa," became the most famous school which then existed in Italy; for there, under the influence of Vittorino, in a short time there came together other Professors of Grammar, Dialectic, the Latin and Greek tongues, Painting, Music, Dancing, Gynmastic, and the arts of riding and fencing; for besides the children of the Marquis and of other Mantuans there were admitted youths from other distinguished families of Italy, France, Germany and even of Greece.

We are now, in fact, already in the midst of that great movement of human culture which invaded Italy at this age, of which Mantua was one of the most vital centres, and which I have described in my "Humanism and Art" (Part IV of "The Renaissance in Italian Art."). "Besides the rich and noble youth"—I wrote there—"who thronged to Vittorino, no less than sixty poor scholars were fed, clothed, taught at his own expense: plain living and high thinking were there the rule, diet and physical exercises—wrestling, fencing, swimming, riding—were carefully considered; the highest classic authors, Virgil and Homer, Cicero and Demosthenes were revered as the supremest masters of style." We trace here, through the records of this teacher, a wonderful and magnetic personality, a lovable character. "One of the rarest gifts of Vittorino," says one old writer, "was that of *humility*, joined to *contempt of riches;* so that he always was shy of praise, and, living as a poor man, employed all that he had in support of the needy, and it was ordered by him that his mortal remains should be buried without an inscription in the bare ground of the church of S. Spirito."

It seems that these injunctions were set aside: for Lodovico Gonzaga, returning from a military expedition against Milan, when he heard of his beloved Master's death, decided to honour him with the most splendid funeral, at which he was present with his whole Court. And now the quarrel between the two brothers came to a head, and Carlo Gonzaga descended from the Veronese territory with 3,000 horse and 500 foot-soldiers to recover his possessions, but was defeated by the Marquis (Lodovico) at Villafranca in a battle which lasted five hours, and fled to Ferrara, to the parents of his first wife. The Venetians had taken his side, but now made their own peace; and "Carlo Gonzaga remained at Ferrara, wrapped in gloomy thought at not having recovered from the Marquis his lost possessions . . . and being infirm he ended his life by a fluxion of blood on December 21 of 1456. The body was brought to Mantua, and there buried within the city before S. Maria delle Grazie." Lodovico, one of the strongest of a strong race, now ruled undisturbed over the destinies of Mantua.

Cibber's Fountain in Soho Square.

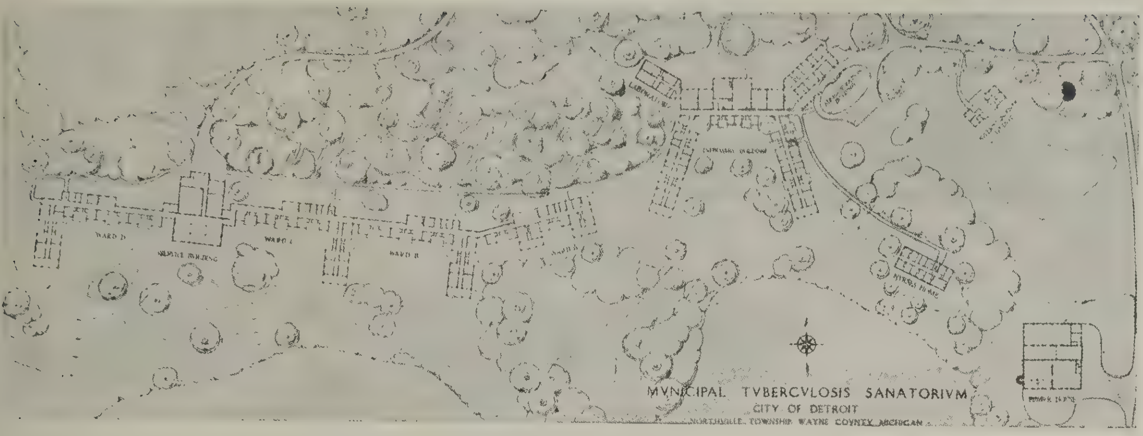
The announcement in "The Times" of February 20 that Cibber's statue of Charles II., formerly surmounting the same sculptor's fountain in Soho Square, is one day to return to its original position is of remarkable interest to all lovers of old London. Readers of THE ARCHITECT may remember the description of it in our chapter on the sculptor (September 16, 1921), where stress was laid on the Berniniesque character of the river gods at the base; it is, therefore, most satisfactory that the statue surmounting the fountain will, thanks to the generosity of the present owner, Lady Gilbert, one day return to its original site.

Soho Square was begun in the reign of Charles II., a fact which its original name, King's Square, was intended to commemorate, so that a statue of the monarch had a special appropriateness, especially in view of the fact that the Duke of Monmouth lived there. The fountain itself was adorned with statues of the Thames, Severn, Trent and Humber, in obvious imitation, as we have pointed out, of Bernini's great fountain in the Piazza Navona with its figures of the Danube, Ganges, Nile and Rio della Plata, which Cibber must have admired in Rome; it was these river-gods which excited the delight of the sculptor, Nollekens, who told J. T. Smith that he had "often stood for hours together, to see the water run out of the jugs of the old river-gods, into the basin in the middle of the square," adding the curious detail that "the water never would run out of their jugs, but when the windmill was going round at the top of Rathbone Place."

There is some mystery about the base, though none about the statue. In a view of Soho Square in 1700 the river-gods are not there, so that they must have been an afterthought. When in 1855 Timbs wrote his "Curiosities of London," the gods had disappeared, the basin was filled up and treated as a flower garden. The next twenty years saw Soho Square growing more and more derelict, and when in 1876 Mr. Thomas Blackwell put it into order at his own expense, he removed the statue and its carved pedestal, and presented it to Frederick Goodall, R.A., who placed them in the middle of the lake at his house, Graeme's Dyke, Harrow Weald, now the property of Lady Gilbert, whence they will one day return to their original position. What became of the river-gods no one seems to know, and it is a singular fact that the statue, which was originally erected without them, will thus return to its pristine condition, though Monmouth House, opposite which it was significantly erected during the Duke of Monmouth's heyday as the Protestant hero of the anti-James Duke of York, party, has long disappeared. An engraving of Monmouth House, one of the most singular edifices, surely, ever produced by an architect's disordered dream, will be found in J. T. Smith's "Antiquities of London," and an account of its singular interior, with its decorated plaster ceilings, its oak staircase, tesselated floors, drawing-room lined with blue satin, and series of imperial busts, will be found in his life of Nollekens, with whom Smith visited it as a boy.

Cibber's other Royal statues have all disappeared, lost in the disastrous fire of 1838, when the second Royal Exchange, a storehouse of sculpture, vanished from the list of London's public buildings. Cibber, it may be remembered from our chapters on that sculptor and on John Bushnell, got the job through his patron the Earl of Manchester over Bushnell's head, though the latter had begun, and in two cases completed, the statues of the Kings from Edward VI. to Charles II., which Vertue saw in his unfinished house in 1725. Engravings of the Exchange, which are many, show most of Cibber's series in their niches in the inner courtyard, but in no case is the detail good enough to allow of our judging his style. His statue of Sir Thomas Gresham, however, was saved, though in somewhat mutilated condition, and still stands along with Bushnell's statues of Charles I. and Charles II. from the *outer* (Cornhill) face of the Exchange, in the Old Bailey, and is known to be his by a process of exhaustion: it is not Bushnell's, which is known from an engraving; it is not Pierce's; therefore it must be Cibber's, and as the only surviving portrait statue by that sculptor, apart from those on his monuments, it deserves careful comparison with the Charles II. which will one day reappear in Soho Square.

The will of Mr. A. Reade Wood, of Wolstanton, Staffs, who died on December 21, has been proved at £33,119 gross.


MVNICIPAL TVBERCVLOSIS SANATORIVM
CITY OF DETROIT
NORTHVILLE TOWNSHIP WAYNE COVNTY MICHIGAN

MUNICIPAL TUBERCULOSIS SANATORIUM, DETROIT.

STRATTON AND SNYDER, Architects.

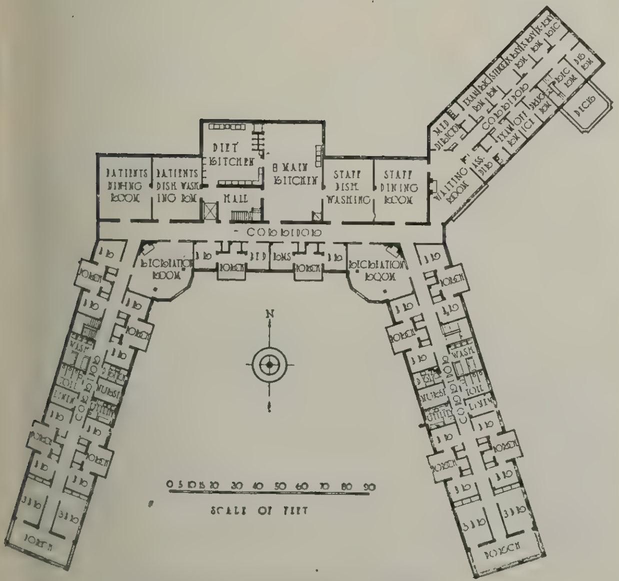
GROUP PLAN.

The Municipal Tuberculosis Sanatorium for the City of Detroit.

From the December number of "The Architectural Forum," of New York, we give an exceedingly well thought out and interesting design for a tuberculosis sanatorium which has been erected at Detroit from the designs of Messrs. Stratton and Snyder. The cost of the building was about £340,000, and the cost per cube foot about 2s. 7d., the number of beds 300, and the allowance of cubic space per patient 8,799. Its construction is described as being semi-fireproof, and the system of ventilation is natural. The floors are tile and oak on reinforced concrete, the roofs are tiled, and the walls of face brickwork with a hollow tile backing. The whole area occupied by the buildings is 200,637 square feet, and the windows are casement windows.

The typical ward unit shows two rooms with an open porch between projecting in front of the general wall line and accommodating two beds.

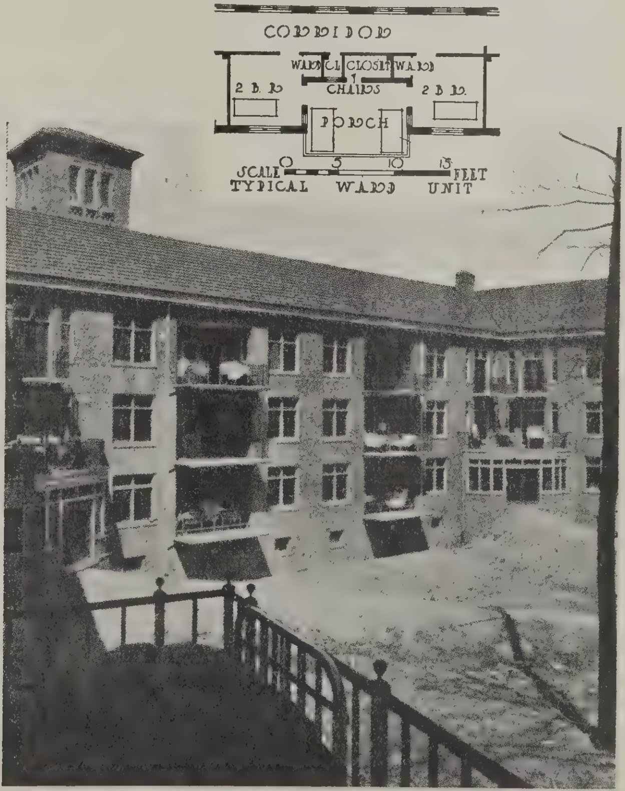
The general plan shows a long building facing almost due south and divided into four ward blocks and a service wing. Another of the component buildings is the infirmary block, forming three sides of a quadrangle with projecting wings at the angles containing the laboratory and administration section, while the nurses' home, superintendent's office, and power house are arranged in isolated blocks. The design is typical of the attention now being given to hospital construction and design in the United States, the whole of the number of the "Architectural Forum" being devoted to illustrations of recent hospitals erected in America, with articles on the design and arrangement of special features. The number is entitled "The Hospital Reference Number," and is published at a price of $2.



MAIN FLOOR PLAN OF INFIRMARY BUILDING

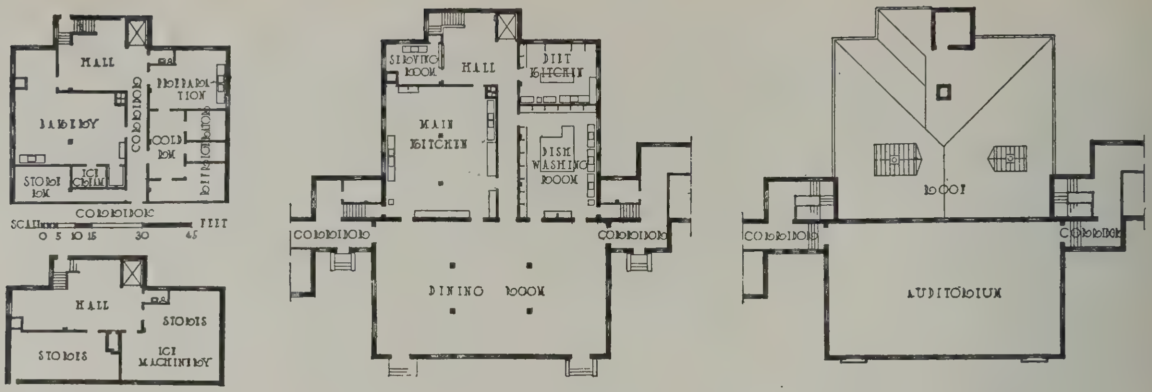
MUNICIPAL TUBERCULOSIS SANATORIUM, DETROIT.

STRATTON AND SNYDER, Architects.



MUNICIPAL TUBERCULOSIS SANATORIUM, DETROIT: INFIRMARY BUILDING.

STRATTON AND SNYDER, Architects.



FRONT PORTION UNEXCAVATED

FIRST FLOOR PLAN

SECOND FLOOR PLAN

MUNICIPAL TUBERCULOSIS SANATORIUM, DETROIT.

Stratton and Snyder, Architects.

SERVICE BUILDING.

Victoria and Albert Museum.

The Victoria and Albert Museum has acquired out of the funds of the Murray Bequest four panels of stained glass from the recent sale of the Engel-Gros Collection in Paris. Three of these are Swiss and belong to the period of highest accomplishment; the fourth is South German.

The panels are as follows:—

(1) The Assumption of St. Mary Magdalene; Basle School, early sixteenth century. The vivid effect producible by the process of scratching a design through a film of dark paint is here seen in its full force. The composition closely resembles the engraving of the same subject by Dürer.

(2) The arms of the town of Porrentruy, supported by angels; sixteenth century—a panel showing extreme skill in the arrangement of colours.

(3) The arms of the Counts of Kyburg, supported by a wild man and woman. Zurich school, end of the fifteenth century. This was formerly in the collection of the Baron de Trétaigne.

(4) Adam and Eve. South German School, fifteenth century. The panels are temporarily exhibited in Room 139.

Under the will of the late Miss M. B. Hudson, whose interest in the national collections extended over a period of many years, the Victoria and Albert Museum has become possessed of an important group of articles in old Sheffield plate. The larger objects include three centrepieces for the dinner table, one of them a singularly graceful design of pierced oval and circular dishes borne on curved branches, the whole reflected in the mirror of an octagonal plateau. It dates from about 1780, when the manufacture of Sheffield plate had reached perfection of technique, and was guided in design by the fine taste developed on classic lines by such decorative artists as Flaxman and the brothers Adam.

Similar elegance is shown in some of the tea urns and other objects in the bequest, which includes also a few fine pieces of silver in the same refined style. The Sheffield plate, the greater part of which has been exhibited for some years on loan, is grouped in three cases among the main collection (Room 34, South Court). This includes also the beautiful collection bequeathed by the late Viscountess Wolseley in 1920, and now affords a worthy representation of this English art.

Miss Hudson also bequeathed some important specimens of needle point and bobbin lace, lacis, and drawn work, chiefly Italian, French, and Flemish work of the seventeenth and eighteenth centuries.

A joint meeting between the R.I.B.A. and the Institution of Electrical Engineers to discuss the subject of "The Co-operation of the Architect and the Electrical Engineer" will be held at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2, on Thursday, March 15, at 6 p.m., when papers will be read by Mr. Francis Hooper, F.R.I.B.A., and Mr. J. W. Beauchamp, M.I.E.E. Light refreshments will be served at 5.30 p.m. All Members and Licentiates of the R.I.B.A. who are interested are cordially invited to attend and to take part in the discussion which will follow the reading of these two papers.

The Café Royal, Regent Street, W., is to be rebuilt at a cost of between £400,000 and £500,000, and the work will begin in July. The new Café Royal will be considerably larger than the present building, and its height is to be raised to 100 ft., the same height as the Piccadilly Hotel.

"The Architect" Fifty Years Ago.

March 8, 1873.

The Improvement of Paris.

Some time since it was announced that the municipal government of Paris had determined on carrying on the completion of the improvements in the streets on a new system—namely, that the inhabitants of each quarter were to decide amongst themselves, not only respecting the policy of any new opening or re-construction, but also upon the amount to be paid to all those whose property might be affected by the alterations. The first case that we have noticed under this arrangement is just announced officially. A contract has been made between the Prefect of the Seine and MM. Colin & Watel, the latter undertaking to form a new street, 12 metres wide, between the Boulevard Voltaire and the Place de la Réunion in the 20th Arrondissement (not a long street), to pay all the indemnities to landlords and tenants in consideration of receiving the sum of 1,950,000 francs (£78,000). Here we have the cost of an ordinary street under the most economical circumstances, for we may be assured the assessors, who have to pay the indemnities themselves, have not been over lavish. What must then have been the cost of the miles of new boulevards created between 1851 and 1871?

Competition News.

The President of the Royal Institute of British Architects has nominated Mr. Henry V. Ashley, F.R.I.B.A., as Assessor in the proposed public baths and washhouses competition, Greenwich.

Members of the Society of Architects are requested not to take part in the competition for a block of shops for the Prestwich Co-operative and Industrial Society, Ltd., without first ascertaining that the conditions have been approved by the Council of the Society.

The expenditure incurred on works of preservation at Tintern Abbey since it was placed in charge of the Office of Works in 1913 has been approximately £20,000.

THE DAIRY FARM, EDENBRIDGE.
The late Maurice Pocock, Architect.
(See page 174.)

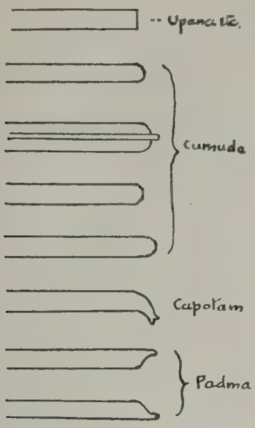


Fig. 1. Hindu Mouldings.

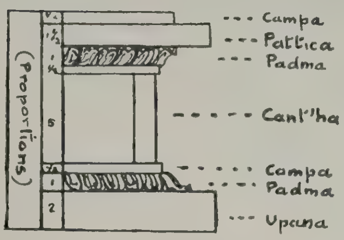


Fig. 2. Pedestal Vedibhadra.

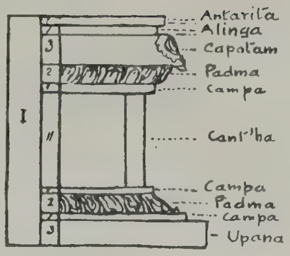


Fig. 3. Pedestal Pratibhadra.

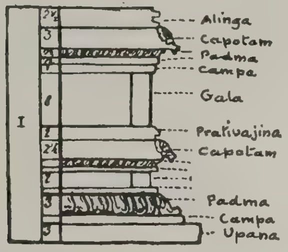


Fig. 4. Pedestal Manchabhadra.

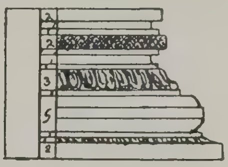


Fig. 5. Base Cumbhabandha.

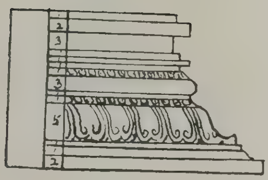


Fig. 6. Base Manchabandha.

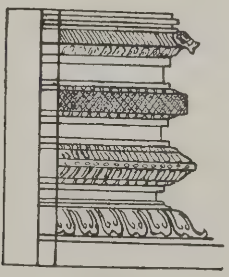


Fig. 7. Base Pratibhandha.

The Orders of Hindu Architecture.

By Cyril G. E. Bunt.

long as the noble art is studied, so long will good old gusson be revered for his voluminous works that have me classics. His monumental pioneer work laid the ndations upon which all our architectural text-books been based; and, in certain directions, his herculean urs have never ceased to bear fruit. If his conclusions me directions (as, for example, in his valuable treatise Indian architecture) have become somewhat out of , it does not mean that we value his work the less, but ly that our accumulated knowledge of the subject has n us a new outlook.

the study of Indian architecture we are, at the outset, l with one great lack—a drawback felt as much by native Indian student as by us—the want of any rate translation of those valuable writings known as *Silpa Sástras.* These ancient treatises, many of which hought to be lost irrevocably, others to exist only as nents, are all but unknown; which is a great pity, for out their aid it is difficult to appreciate their complex t a correct angle.

It is unnecessary to rehearse the names of these interesting works. They are strange, and a list would be meaningless. We will content ourselves with mentioning one—entitled *Sakaládhikára*—a work attributed to the Puranic sage Aghastya. It is most interesting to note the wide range of its many chapters.

It opens with an exposition of the various measures employed in architecture, sculpture and carpentry, and then proceeds to tell us the qualifications necessary in an architect and the origin of the five different classes of artists. Three chapters are devoted to the nature and qualities of the soil suitable for temples, palaces and private dwellings. Chapters treat of town-planning and villages, giving rules for the formation of streets, selecting the sites of temples and residences of different classes according to caste. The prescribed dimensions of various types of edifices, the appropriate sacrifices and rites to be observed, the laying of foundation stones, each are given a chapter. The traditional dimensions and descriptions of pyramidal temples occupy no less than ten sections, nor are the

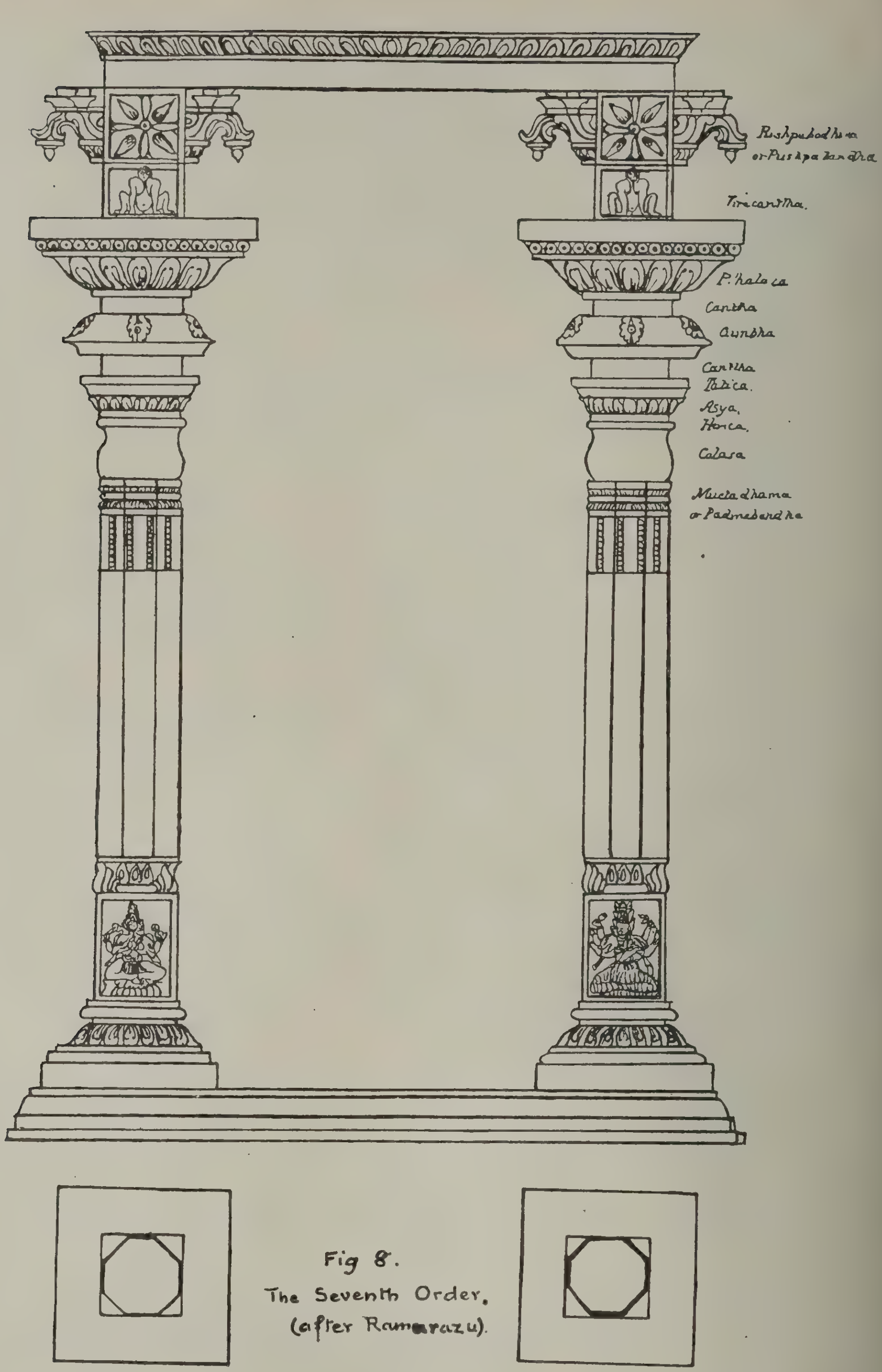


Fig 8.
The Seventh Order,
(after Ramarazu).

wonderful *gopuras* (those piled glories of detail raised over "Dravidian" gateways) or the *mantapas* (resting-places for the gods) neglected.

The Hindu Orders are likewise dealt with minutely, there being chapters devoted to each of the four principal components—the *Upapita* or pedestal, the *Adhistána* or base, the *Stamba* or pillar, and the *Prastára* or entablature.

One cannot but wonder at the thoroughness with which the art has been regulated, and it is not too much to say that these *Silpa Sástras* have had more influence on Indian architecture than ever Vitruvius had on the architecture of the West. There is an elasticity about the Hindu proportions which is not found in the classic Greek, but for all that there is no doubt that the traditions of the *Sástras* are as a sacred injunction, and have been adhered to in the erection of all the great temples of classic India.

Like the Western architects, those of India look upon the Base not as a distinct member, but as a component part of the column. In fact, the Pedestal, too, is often considered a necessary part of the order.

Both the pedestals and bases are composed of simil mouldings—the fundamental forms of which are shown section in fig. 1. There are considered to be nine mouldin of rectangular form, each having its distinctive name, a these are more frequently employed in the pedestals th in the bases. The *Upana* (plinth) is always of this forr Of the ornamental mouldings four are termed *Cumu* (*nymphæa esculenta*). They differ in small details, the fir being rounded, the second having a small squared proje tion, the third being facetted, and the fourth concave grooved. The *padma* (lotus), corresponding to the Gre *cyma* has two forms, the *recta* and *reversa*. A most chara teristic moulding remains to be mentioned, the *Capótam*, named in reference to its derivation from the pigeon's hea

Three principal types of pedestal or stylobate are reco nised, each of which, however, is further subdivided in four. Figs. 2–4 show the three types, and it will observed that they are progressively elaborated. Th may readily be distinguished, for *védibhadra* is compar tively plain and has no *capotam* moulding, while the mo

plex *pratibhadra* has one and the *manchabhadra*, most
plex of the three, has two *capotam* mouldings. These
stal forms are, of course, not solely used as supports
olumns. They are employed also upon temple plat-
s, porticoes, and as supports for thrones and seats for
ies. When used as part of an order their dimensions
always governed by those of the superimposed bases,
e the bases hold due relation to the diameter of the
rs. There are said to be no less than sixty-four different
s of bases; diagrams of three are shown in figs. 5–7.

llars are grouped into seven classes, each having its
cular dimensions and its relative type of base and
al.

e first group has a column six diameters in height, and
rely employed except upon a high base and pedestal.
ppropriate base is *pratibandha* (fig. 7), or a variant,
ieight of which should equal one-third that of the
in. Its pedestal is *manchabhadra* (fig. 4), and the
of its capital *pushpabandha* (the pendent floral form
ing the column in fig. 8). The entablature with this
be more than half the height, and the intercolumnia-
four diameters.

e second type has a column seven diameters high, and
ally employed with the base *cumbhabandha* (fig. 5),
diameters in height. The appropriate pedestal is
adra (fig. 2), and it should equal three-fourths of the

e third group is eight diameters in height, and the
diminishes at the top one-eighth part of the thickness
e base. Its capital is the *phalaca* (see fig. 8), which
l measure three-quarters of the diameter of the base
arry an entablature the height of one-quarter diameter.

e fourth group has a height of nine diameters, and is
yed with the base *pratibandha*, one diameter, and no
It has a capital measuring three-quarters of a
ter.

columns of the fifth type are the height of ten
ters, with a base of three-quarters. Sometimes they
t upon a pedestal one-third the height of the pillar.

sixth and seventh groups are very similar, though
ight of the former is eleven and the latter twelve
ters. Fig. 8, from the pillars at Kâñchîpuram, may
en as an example.

he foot of the shaft, where the column is square on
here are carved reliefs of gods with a band of orna-
above called *nágabandha* (from its supposed origin in
pent motive). Above this the shaft for about three
half diameters is octagonal, including the strings of
hanging from the band known as *padmabandha*.
this rests the *calasa* or water-pot, surmounted by
arrow projecting mouldings. The prominent mould-
ove this is the *cumb'ha*, and the one still higher the
. The whole is terminated by the capital *push-
'ha*.

ust be remembered that, although certain capitals
ntioned as appropriate to particular orders, as a
of practice they are seemingly varied at pleasure.
ie attention is always devoted to the proportion
to the shaft.

rule given for the diminution of the Hindu column
e diameter at the base is divided into the same
of parts as there are diameters in the total height,
e such part is the amount of the diminution at the

is, except in the case of the first group, no fixed
intercolumniation; but in the case of porticoes and
des it usually varies between one and a half to two
rs.

ntablature (*prastára*) of the Hindu Orders admits of
ariation architecturally, although its height is in
ases seemingly excessive. The decoration of its
gs, however, is generally of great richness and
(fig. 9). A prominent member is often an ornate
moulding, which, besides adding materially to its
, serves also as a sort of dripstone to protect the
embers.

the foregoing notes it will be gathered that for
t—right through the great temple-building epoch—

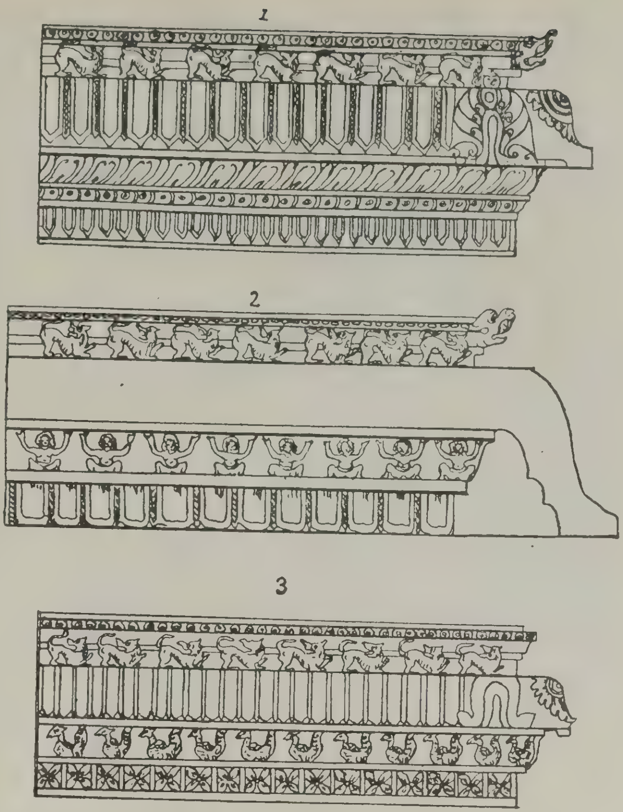


Fig. 9. Examples of Prastaras (Entablatures).

the Hindu architect has been led along very definite lines in the practice of his art. Whether the results have, or have not, been in accordance with Western ideas of beauty and proportion is beside the point just now. We at least learn that the art has been inspired by a great seriousness, an intelligent search after truth, and that therefore the result *must* be worthy of serious consideration by students. Appreciation can only come with understanding the Hindu personality, and sympathy with its ideals. A later opportunity may offer for us to glance at Indian architecture from this particular angle.

Forthcoming Events.

Friday, March 9.—Fancy Dress Ball and Carnival arranged by the Architectural Students of London, at 9 Conduit Street, W. 9.30 p.m.

Town Planning Institute. Meeting at 92, Victoria Street, Westminster, S.W. Paper by Mr. L. C. Evans (Town Clerk, Salford), entitled "Acquiring and Replanning Congested Areas." 6 p.m.

London Society. Meeting at 18 John Street, Adelphi, W.C. Paper by Mr. Frank Pick, entitled "The Art of the Street—as illustrated in London." 5 p.m.

Saturday, March 10.—Reading Society of Architects. Meeting at University College, Reading. Paper by Mr. A. R. Powys, entitled "The Protection of Ancient Buildings."

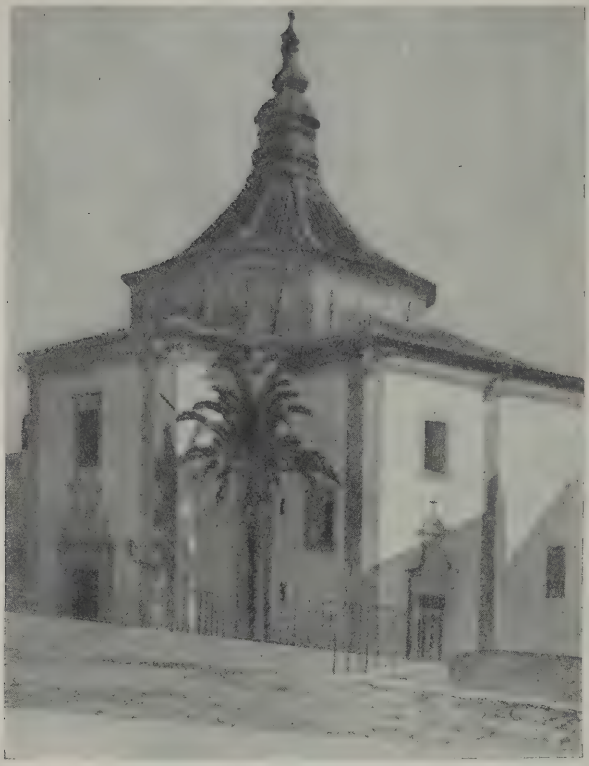
Monday, March 12.—Surveyors' Institution. Meeting at 12 Great George Street, Westminster, S.W. Paper, Mr. C. Gerald Eve, F.S.I., entitled "Valuations for Schedule A." 8 p.m.

Thursday, March 15.—Royal Institute of British Architects. Public Lecture at 9 Conduit Street, W., by Mr. H. S. Goodhart-Rendel, entitled "Architecture—a Necessity or a Luxury." 5 p.m.

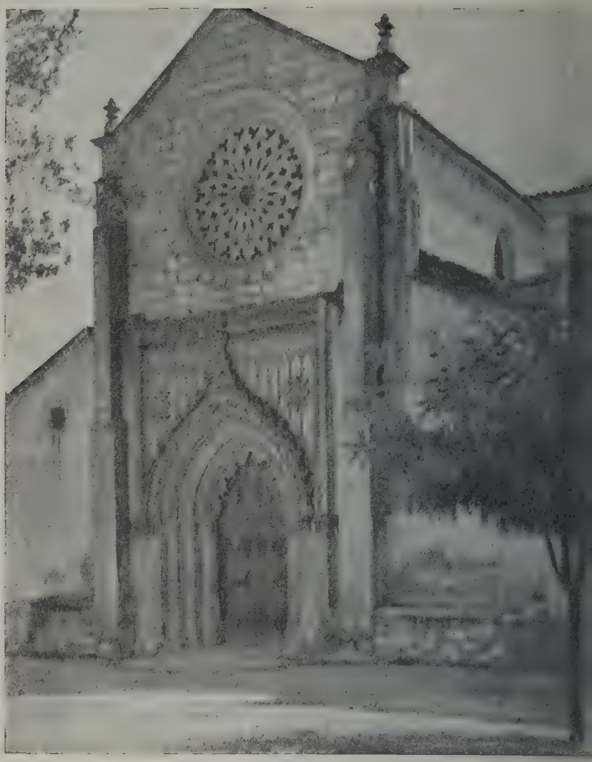
Edinburgh Architectural Association.—Meeting at College of Art, Lauriston Place. Paper by Councillor T. B. Whitson, C.A., entitled "Town Planning in Edinburgh." 7.30 p.m.

Incorporated Institute of British Decorators. Meeting at Painters' Hall, Little Trinity Lane, E.C. Paper by the President, Mr. John Scott, entitled "Decoration—Past Examples and Present Trend." 7.30 p.m.

International College of Chromatics. Meeting at Caxton Hall, Westminster. Lecture by Mr. J. Stanley Beard, M.S.A., entitled "The Use and Misuse of Colour in the Theatre and Cinema." 8 p.m.



PIADADI CHURCH, SANTAREM.



WEST FRONT, CHURCH DA GRAÇA, SANTAREM.

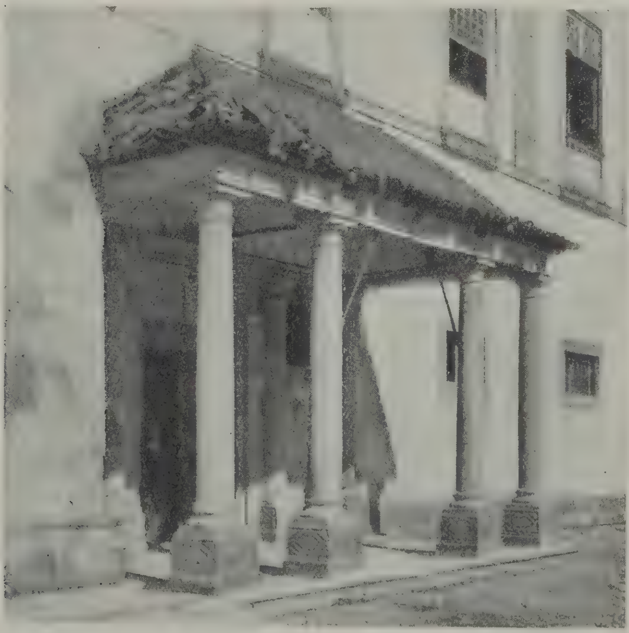
Notes from Portugal.

By G. A. T. Middleton.

No. XIII.—Santarem.

Santarem, situated on a high escarpment overlooking a broad river and a great stretch of low-lying country to the east, contains many buildings which bear indications of having once been both of magnitude and beauty. But they are now mere empty shells, extraordinarily reminiscent of the factories round about Liége as seen in the months immediately after the armistice. The town looks as if it had been bombarded and sacked, and the people have a listless air in keeping with the ruined state of their surroundings, while in an architectural sense what is now worth recording is small, though it exists.

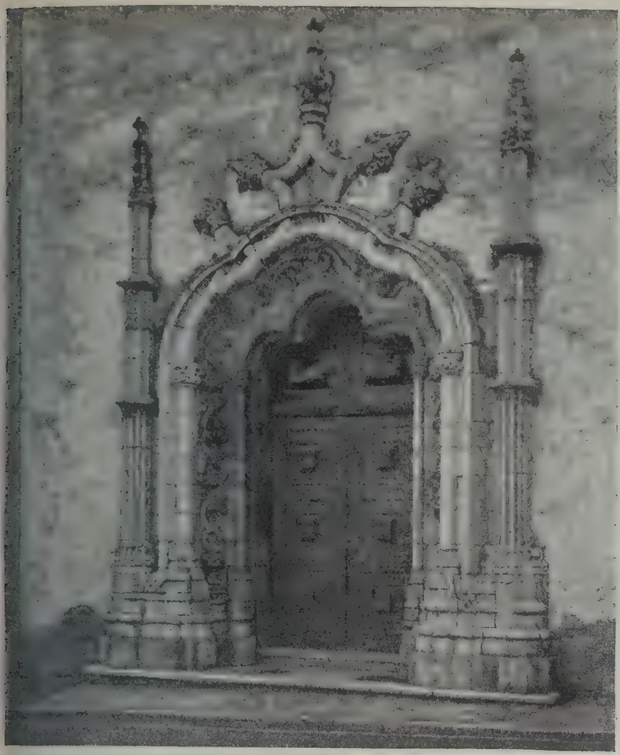
The only complete building which is at all uncommon is the little Piadadi church, planned as a Greek cross, and with a curiously steepled octagon rising above the crossing. T result is a picturesque disharmony, if such a contradicti of terms may be allowed, successful in spite of its inc gruity, and owing no small part of its success to the furt incongruity of the introduction of gargoyles above pilasters of the arms of the cross. Even these pilasters, a the entablatures above them, are absurdly ill proportion according to all accepted canons; and yet the build pleases.



ENTRANCE FRONT TO SEMINARY, SANTAREM.

Almost opposite to this church is the entrance to Seminary, a great prison-like pile, plain to ugliness, a with its small lower windows strongly barred. But porch, even in its present dilapidated state, is a little g of simple Doric treatment. There are four columns or widely spaced and standing upon simply ornamen pedestals to give them the required height without disp portion; and the central space is considerably greater th the others, beyond the capacity of the architrave stone span with safety—for it has cracked, and is now suppor by iron stays from the columns. The architrave is cut three facets, as if it were Ionic, this being æsthetica necessitated by the wide spacing, but there is no frieze all, and the place of a cornice is taken by heavily ov hanging eaves of tiles of Roman character, valley a capping alternating, and double-coursed at the eaves. dilapidated condition is merely indicative of the gene condition of the town. Putting that aside, the treatm of the porch is simple, economical and effective.

The west front of the Church da Graça is mainly int esting from the conundrum which it presents. The doorw extremely rich in detail, is similar to some of the l fourteenth-century work at Batalha, but somewhat h and unpleasing in its detail, like the false Gothic (execu in the nineteenth century) of the greater part of Colog Cathedral, only on a much smaller scale. Here, howev it scarcely looks like a recent insertion, though the wh window above it may be and probably is, its des being a mere travesty of the flamboyant in character—wl the terminations of the angle buttresses are fran Renaissance. The total effect is far from satisfactory.



MANOËLIAN CHURCH DOOR, SANTAREM.

On the other hand, a Manoëlian doorway to another hurch, which an architectural purist would necessarily ave to condemn in unmeasured terms, is so well held ogether in its composition by tall buttress pinnacles as to e satisfying in a general sense. It is just the sort of thing hich a young student might be captivated by and tempted o measure carefully—to his great subsequent detriment.

The hood moulding and a large roll just within it are uspid to conform with the inner door head, and at the ame time the stones form the voussoirs of the main arch. uite naturally the joints have opened. The roll moulding s also cuspid *upwards*, by interpenetrating the hood, and he terminals of these upper cusps are carved like the poppy-eads to English bench ends, taking the place of crockets nd finials to the arch.

When pulled to pieces like this it all sounds very bad, and he foliage carving is, of course, autumnal, if not wintry. t certainly is not beautiful, and architecturally it is far rom pure; but it is both quaint and rich and picturesque—herein lies its danger as an example to him who would xcel.

New Books.

The Elementary Principles of Lighting and Photometry." By J. W. T. Walsh, M.A., M.Sc., etc. London: Methuen & Co., Ltd. 10s. 6d.

That it should need a book of such dimensions as this in order expound merely the elementary principles speaks eloquently r the importance of the subject dealt with. And it may be id at once that Mr. Walsh has exhibited a patience and per-icuity, combined with his mastery of the subject, that render a pleasure to peruse the work.

The scientific treatment of illumination is the growth of com-ratively recent years, and doubtless as the years pursue their urse it will be found necessary to revise some of the views at esent held. Meanwhile such a book as this may be regarded a safe guide and as a stepping stone also.

Mr. Walsh is careful to avoid taking credit, where credit is not e, by explaining upon page 196 his reason for avoidance of bliographical references throughout the book, and his reasoning ems perfectly sound. The bibliography which follows is, wever, sufficiently comprehensive.

It needs no emphasising as to the importance of adopting eans to prevent the waste of eye-power, which has been so plorably extensive in the past.

The subject of Glare receives attention from the author, and hen one heeds certain realistic diagrams of the effect of glare upon the pupil of the eye, reducing the former to almost a pin's point, the desirability of avoiding this defect of lighting is made fully apparent. And to this end the author very well points out the value of dimming and similar arrangements, to avert sudden contrasts.

Surely the illumination from a sunny and cloudless sky is in excess of that from a dull grey sky? and yet, according to the graphs in Fig. 67, this is not the case. Again, on page 136, the maximum of three candles per square inch for brightness of a diffusing bowl is very liberal; does not the author mean "per square foot"? In a bedroom local lighting to the bed, through the medium of a wall plug, should be a provision. It is well, too, to draw attention to the following trifles:—On page 15 (lines 9–10) the word "not" needs insertion; page 46, first line, there is a compositor's transpositional error; and on page 45, tenth line, the word "points" needs insertion. A good index completes a good book.

English Salt Glaze Stoneware.*

Mr. J. F. Blacker has written a fascinating book on an interesting subject, and many will be surprised to see how nearly the best work of the master potters approaches to a standard of first-rate sculpture. Busts, like those of Prince Rupert by Dwight, and the little figure of Dwight's daughter Lydia, taken after death, and in later times Tinworth's Merry Musicians, carried out in brown Doulton ware, show what has and can be done in earthenware. The book is one which will be useful to the collector, as well as attractive to a wider public who will find interest in the sketches given of the lives and achievements of the earlier potters and the copious examples given of their achievements in the field of design.

Heraldry and Floral Forms used in Decoration.

"Heraldry and Floral Forms used in Decoration." By Herbert Cole. London and Toronto: J. M. Dent & Sons, Ltd. New York: E. P. Dutton & Co. 10s. 6d. net.

This is a simple, clear and well-written book on heraldry, illustrated with vigorously rendered drawings by the author. It is a little difficult to determine the place that will be held by heraldry in the future. On the one hand it is so peculiarly decorative that no substitute can quite fill its place; on the other, it is bound to be, as far as can be seen, a dead language to the modern world. The average man may recognise a few national flags, though he would be quite unable to detect minor mistakes in their composition. The royal arms are familiar to him, he may know his own crest, if he has one, but will certainly fail to identify that of his friends unless much repetition stimulates his memory, in the same manner that a trade mark becomes familiar to one who constantly sees it. To sum up, heraldry, which used to be an integral part of the education of every gentleman and formed a universal language, has now become an antiquarian subject, and its forms depend for their modern use on decorative values. And inasmuch as heraldry is governed by precise rules and decoration is not, there is an added tendency to avoid that branch of decoration which needs most knowledge. We regret this, for while floral decoration may be very delightful, heraldry carries with it deeper meaning. The book before us is one that can be safely recommended to those who would learn the rudiments of a most interesting subject.

The Corporation of Honiton have asked W. H. Radford & Son, civil engineers, Nottingham, to revise their scheme so as to include the whole of the town. The scheme will include new main sewers and the construction of new sewage disposal works, detritus and screening chambers, dry weather and storm-water tanks, mud drying beds, filter beds, and humus tanks.

Mr. Frank Nash, M.S.A., 6, New Square, Lincoln's Inn, W.C., is the architect for the remodelling of the Burdett-Coutts and Townshend School, Westminster, S.W., which is about to be carried out. The following tenders have been received:—Webster & Son, £18,117; Kingerlee & Son, £17,927; Geo. Parker & Sons, £17,145; Holloway Bros., £16,825; Ashby & Horner, £16,625; Higgs & Hill, £16,450; Foster & Dicksee, £16,392; Jas. Carmichael, £16,220; Patman & Fotheringham, £15,665.

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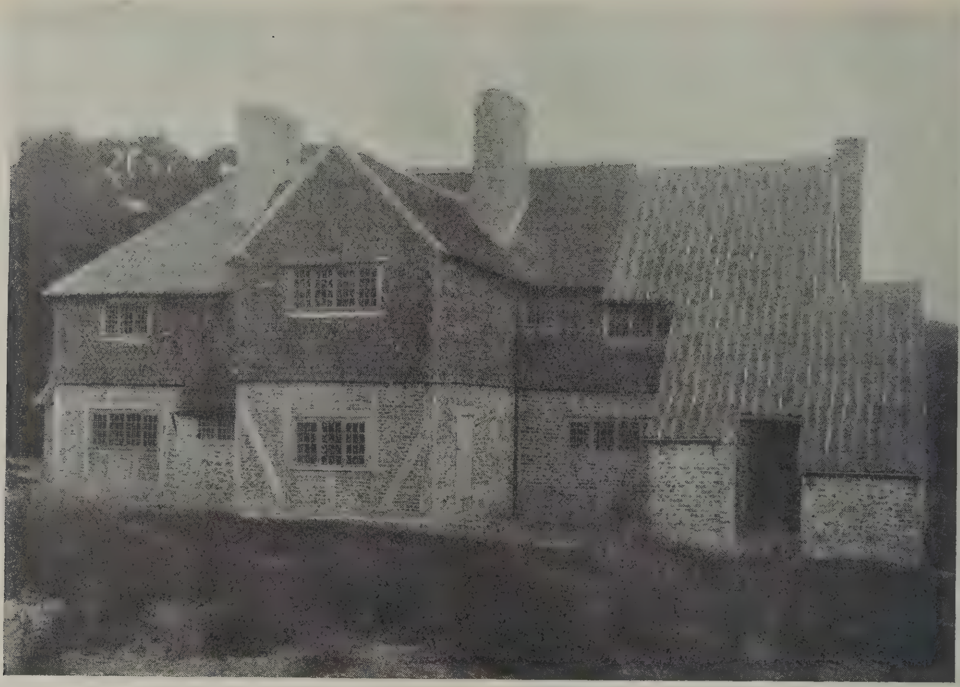
* The A.B.C. of English Salt Glaze Stoneware from Dwight to Doulton. By J. F. Blacker, with over 200 illustrations in line and half-tone. London: Stanley Paul & Co., 31 Essex Street, 15s. net.

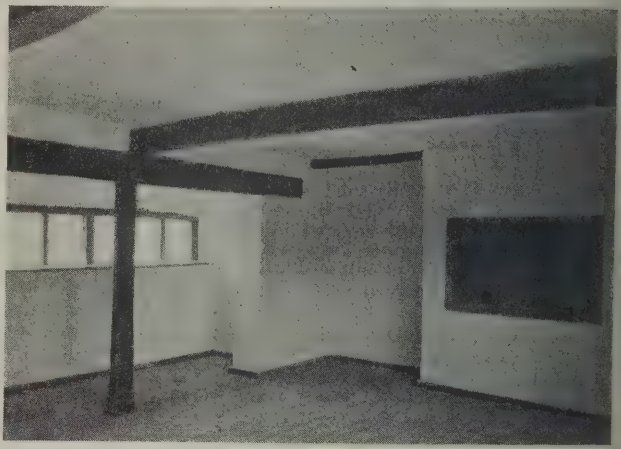


DAIRY GREEN, CROCKHAM HILL (South).

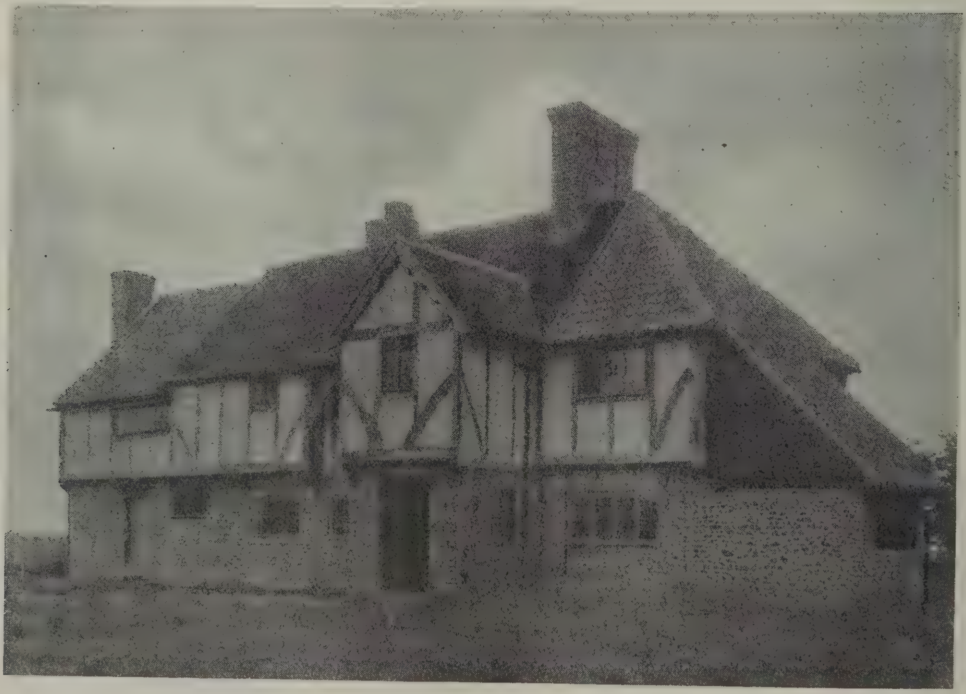
The Dairy Green, Edenbridge.

The Dairy Green, which was the last unfinished work of Maurice Pocock, is perhaps a little nearer to his heart's desire than anything he had done before. But his heart's desire was something very different to that of the modern world in which he lived, and so he gained none of those distinctions which he might have gained had he been one of those who are content to bow themselves in the House of Rimmon.

I remember he once summed up for me his creed of work in the phrase "England, Home and Beauty," and I know that the England he stood for was the old unspoiled England, not the England of official housing schemes or the blatant shop window display of transitory rubbish, but the old sane England of the past, when men had leisure and time to think and enjoy the simple natural things, when the ideal of home was enshrined in dwellings which—however small—were never ignoble, and his idea of beauty, which he illustrated so well in his work, was something different to the modern idea. He took little interest in decorative colour schemes: in any of the superficial clothing of a building. For a house at its best is a personality: it has a character of its own, and the quality of this essential character



LOUNGE OR SITTING HALL, DAIRY GREEN (Looking West).



DAIRY GREEN, CROCKHAM HILL (From N.W.)

PSTAIRS CORRIDOR, DAIRY GREEN, CROCKHAM HILL.

l personality depends on structure and workmanship. The t kind of beauty for the house is beauty of character rather n mere aesthetic superficial beauty of clothing. Not that a lding should necessarily be unclothed. A bad building needs l a good one deserves clothing.

A good example of what I mean is the sketch of the bed- m fireplace at Dairy Green. Here the brickwork of the ll itself expresses itself with no superficial adornments. e modern way would have been to obscure all this with a te surrounded by tiles and mantlepiece, not necessarily a ng way by any means, but still lacking that note of reality ich the structural treatment conveys.

This charming house has all the unconscious air of the kind picturesqueness which has arrived naturally. It looks like a of old England, but does not suggest that it is an imitation a bit of old England. There is no kind of affectation about it, l it represents perhaps as good an arrangement as could be de of the old materials available. And because it all seems so ple and so inevitable, it does not look nearly as difficult as eally is.

There are no rules laid down in books for this kind of work. re are no securely tabulated laws. It is all a matter of the right inct of a mind steeped in the knowledge and love of old k.

n the hands of a sympathetic owner, with the right clothing furnishing, it will make a dwelling which he will like better longer he lives in it, for its qualities are deep rooted in its cture.

Royal Institute of British Architects.

he second of the series of public lectures arranged by R.I.B.A. was given on Thursday of last week, when Sir and Adkins, K.C., M.P., F.S.A., spoke on "Architecture the Countryside—a Layman's Questions"; Mr. J. Alfred ch, F.S.A., F.R.I.B.A., in the chair.

n his introduction the speaker modestly explained that it had n originally arranged that his "talk" should be given the vious week, and he had only been willing to give it because he erstood by innuendo that it was thought desirable that the lecture of the series should expound and display as much rance as possible, so that those who came after should enjoy roper background for the display of their learning. He ight, and he spoke as one whose ignorance of architecture only equalled by his inquisitiveness when he met architects, perhaps it might offer an opportunity to ask certain ques- s with regard to the architecture of the countryside. We now living in a time of great movements and a great variety hemes like garden cities; the attention of Parliament was ly taken up by questions as to trunk roads, and, thanks to or omnibuses, we had got into the habit of moving about the try in a way our ancestors would have considered intolerable. sorts of persons, from the eminent Fellows of the Royal tute to those who draw up advertisements for railway panies, point out the architectural features of the country-

ing himself, so far as opportunity permitted, not uninte- d in the history of his race, he thought he might raise some tions as to the relation of our architecture to our country- First as to the scope of architecture and its ideas of what a true unit: have they been the same all along or have they ed, and when, if at all, were buildings of an architectural acter first planned and put up with any thought of the effect they would have on the places where they were situated? His theme therefore was "What have been the relations between architectural buildings on the neighbourhood and surroundings in which they were placed?" Our Roman remains were far too few, imperfect and exotic in character to throw much light upon that phase of the subject. When we reach the period when England was acquiring the shape it now has we come to the first period of that history which has gone on with such amazing continuity to the present day. Most of those early buildings have disappeared. But take the famous little church of Bradford-on-Avon. Here was a building intended for the highest of possible uses, yet one which to all intents and purposes must have been exactly like a superior kind of barn—profoundly uninteresting as to its outside from the point of view of the striking or the beautiful. As to its inside, it was as a building slightly more concerned with what was going to go on within its walls and with obvious signs of something meant to be attractive. Rochester Castle remained as a most impressive example of the way in which the Normans built a great fortress—no one could fail to see there was an element of architecture about its proportions and dignity. But did the Normans care a straw for what it looked like? It was built to command a ford of the Medway by men concerned with its military importance, but beyond that with no concern for architecture at all and with no regard for its architectural effect upon its surroundings. Was it not true that from the dawn of English history and down to the Norman period one was dealing with architecture as something entirely by itself, in which the builder felt no concern in how his work looked and without any relation to the neighbourhood in which it stood?

The next stage was different. From the time that the Norman Conquest ceased as a military and begun as a political conception, more and more people grew concerned with permanent buildings, though still living in places of necessity fortified, but where they intended to live permanently, and therefore having different requirements to more or less temporary structures. After Stephen's reign one comes to buildings in which there is still no concern as to whether they looked well outside, but a growing concern that they should be attractive inside. An anxiety was growing up for other things besides fortification. There was a necessity for space where corn could be stored, cattle brought in and the herbs and, later, flowers could be cultivated. The architectural unit was now no longer four stone walls within which people might live in presumed safety. But it had become adapted to the whole spirit of the time and showed elements expressing the variety of contemporary life. What need had there been in the earlier strifeful period for anything more elaborate than Bradford-on-Avon church? When times were unsafe the church bell could be rung by hand without need of a tower. As times grew quieter and more safe the idea came to have something which not only served its direct purpose but also was attractive to the worshippers and clergy and to the persons who then played the part of our great despot of to-day—the man in the street. Was it not true to say that these ecclesiastical buildings were making an appeal not only to those who used them but to anyone who saw them? When the strong rule of the Angevins had become established there was more peace than war, and even during hostilities there arose a tendency to let ecclesiastical buildings alone. The scope of architecture widened and its effect on the countryside became more important. A growing peace coincides with a growing development of Gothic, and it has a growing effect on the countryside and imparts to it some of its most striking characteristics, as, for example, the Perpendicular towers of Somerset. There was in development a self-conscious attempt on the part of those who built to impress the neighbourhood. The thought that his church steeple was better than that of a neighbouring town must have been a life-long consolation to many a good man in those days. The unit was still the church. With the development of monastic institutions the unit was no longer one single building, but the whole group of buildings within the garth. These monastic buildings were the very focus to which the countryside looked, and which imparted to it a great deal of its significance. At Wells the unit is not even the cathedral itself, but the whole group of buildings expressing the ordered ecclesiastical life, and which are meant to be seen as a whole.

After the Middle Ages had come to an end the habit of war ceased. As soon as war, tumults and high controversies weer thrashed out elsewhere than on the battlefield you get a further development in the direction of civil and domestic buildings. There being no longer need for ensuring safety, you come to buildings adapted for comfort—but with yet a certain measure of self-defence, as at Wingfield Manor. From the earliest Renaissance period one gets the feeling that new buildings had to be good for others to look at. Later the thought of what would look well overcame considerations of what was healthy, comfortable and convenient to live in. The anxiety for balance, proportion and regularity was displayed more and more at the expense of real convenience. The whole countryside came to be definitely affected by it and visibly part of its scheme, which aimed at bringing in miles of landscape to lead the eye up to the house itself, with, perhaps, a church steeple at another end of the vista. In the interior of the house in the seventeenth century and well into the eighteenth you find display gratified at the expense of everything else. Later still the unit becomes an entire street or even a whole town. As architecture goes on one notices an ever-widening scope and definite determination to deal not with individual houses or buildings, but with groups of them. If that was so, the question arose: How much farther are we going in that direction ?

Architecture as a Fine Art.

A lecture with the above title was given at the London Institution by Mr. R. Langton Cole, F.R.I.B.A., on February 14.

The lecturer called attention to the rising interest in Architecture, which he described as one of the necessary arts. One might exist without pictures or sculpture, but one must have a building of some kind in which to live and to carry on one's work. His object to-night was not to deal with style or detail, but to suggest that all Architecture might be looked upon as an art, in which the artist sought expression of his idea, just as the painter or sculptor, and that, if this were done, the public would gain greatly, by experiencing from a successful design the emotions which the artist intended to produce. Architecture is the art of good building, but its expression is most varied, and can be used to bring before the spectator all the simpler emotions. It is not necessary to study only one country or one style, for some of these expressions will be found everywhere, and the most beautiful work will be found to contain them all.

Art is an expression of an idea, and if Architecture is a living art, it will be always striving to express something, not merely to copy what has been admired in the past. The slides shown dealt with these expressions, and began with Simplicity, illustrated by such varied subjects as a barn at Romsey, a cottage in Kent, Lake House, St. Cross, a door at Chichester, a church at Glendalough, and the interiors of Antwerp Cathedral and the Cathedral of Westminster, the latter before the introduction of decorative marble, passing to Pose, or position, such as that of the Madonna del Sasso, St. Michael's Mount, Durham, and the Houses of Parliament. Mass was illustrated by Stonehenge, Windsor, Brussels and St. Peter. Contrast, a delightful study, brought before the audience the views ranging from the Fondaco degli Turchi, in Venice, to Tewkesbury, Bath, and the Stock Exchange; while Stateliness and Repose were found in Egypt, Rome, Dublin, and the Tate Gallery. What the lecturer called Aspiration was dealt with by showing slides, mostly Gothic, of Amiens (with a sordid foreground), the Campanile of Westminster, Cologne, Salisbury, and St. Magnus, the Imperial Institute and the Woolworth building—the motive might not always have been the same, but the effect was beyond a doubt.

Richness and picturesqueness were illustrated by the Town Halls of Belgium, Chichester Cross, St. Maclou, Guildford, etc.

Finally, the lecturer dealt with Beauty—*i.e.*, buildings designed to express the most beautiful effect that the particular artist employed could conceive and execute in stone. San Marco and Westminster Hall, the Casa d'Oro and Christchurch Stairs, Giotto's Tower and the Taj Mahal, all seemed to him to share in this supreme effort, and he concluded with the wondrous roof of Henry VII.'s Chapel, a veritable marvel of design "more to the glory of God, and more magnifical," than anything that had gone before. He asked his hearers to keep their eyes open, to watch for effects among even the most familiar surroundings; and if they would do so, they would find that good architecture added another pleasure to life.

Government Housing Proposals.

The National Federation of House Builders, in the statement given below, desires to draw attention to the proposals for State assistance for housing which have been outlined by the Minister of Health in recent speeches, and which are under consideration by the Government, and to the effect these proposals will have upon the final solution of the housing problem.

It has been repeatedly admitted by members of the Government that only by a return to normal conditions of building by private enterprise and the investment of private capital in cottage property, will the vast number of houses required be forthcoming, but the proposals which have been outlined as the probable Government scheme will delay the return to normal conditions and prejudice the solution of the question unless they are suppl
mented by some scheme for the encouragement of the investo

The question naturally divides itself into two parts :—(1) T
building of cottages for the working classes ; and (2) the buildi
of houses for sale to the owner occupier. The Governme
scheme does not assist the thousands of middle-class peop
who are prepared to buy their own houses, and whose hous
will be the first to be decontrolled from the restrictions impos
by the Rent Restrictions Act.

The proposal now under consideration is confined to hous
of the smallest type ; it provides that a yearly grant shall
made to the local authorities for the next fifty years of an amou
equal to half the estimated annual loss (which is stated by t
local authorities to be £12 per annum). This presupposes t
undertaking of large building schemes by the local authoritie
for, although it is stated that local authorities will be urged
encourage private building, no plan for that end has yet bee
mentioned. The houses are to be let apparently at almost 5s. p
week less than the economic rent, and as this is to contin
for the period of the loan, the door will be barred and bolte
against any possibility of private builder or investor buildi
or buying houses of the same type during the next half-centur
Unless there is a very big drop in building costs, the loc
authority will require a similar subsidy in future years, and if
continues the drain on the National Exchequer will be ev
increasing.

The scheme is extravagant: it entails cash payments amounti
to £300 a house from the national purse, and an equal amou
from the local rates, a total loss of £600 on every house built.

The scheme will perpetuate municipal ownership: for all wor
ing-class cottages will have to be built and owned by t
local authority.

The financial result will be disastrous to the local authoritie
if 100,000 houses are built yearly at a cost of £400 each, the loc
borrowing for houses will be 40 millions sterling per annum, a
the loss falling on the local rates will be stupendous. In Ma
chester, for instance, if this policy is adopted and 3,000 hous
are erected yearly, the city debt for housing at the end of t
years will be £12,000,000, and the annual loss to the rates will
£180,000, while the taxpayer will be called upon to find an equ
amount. At the same time, the country will be committed to
policy from which there is no withdrawal without plunging t
housing of the people into a worse state than it is in at presen

The suggested policy of the National Federation of Hou
Builders is that the Government should give a grant of £15
for every house of an approved working-class type built duri
the next few years. This would enable the house builder to off
a paying investment, and private capital could again be attract
to cottage property. When the restrictions are withdrawn t
position will rapidly adjust itself, and all State assistance can
dispensed with.

The Government proposals apparently do not include any he
whatsoever for the many thousands of people who require a litt
more accommodation than that provided by the smallest type
cottage. These people are prepared to buy their own houses
it can be brought within their means, and this can be done to
very large extent without any loss to the public purse eith
through the national taxes or the local rates. The Nation
Federation of House Builders has suggested that the Governme
should guarantee building societies or other mortgagees advanci
capital on repayment mortgages against loss on condition th
the amount advanced is raised from the customary percenta
to 90 per cent. of the value which should be taken as a fa
selling price of the day. The State guarantee would expi
when the mortgage is reduced to an agreed proportion of t
value. By this method new houses could be purchased by t
prospective occupier, who could find one-tenth of the price, a
thus many thousands of houses could be erected before the da
of decontrol arrives. If it proves to be necessary, some add
tional assistance might be afforded by the advance of capit
at a low rate of interest based at the rate at which the Sta
can borrow. Assistance could also be given to the own
occupier of small houses by exemption from local rates or by t
reduction of the assessment for rates and taxes of all new hous
below a certain size.

The National Federation of House Builders submits that so
consideration is due to the housing needs of the people who a
prepared to buy their own house, but who have little capital
their disposal. This class of citizen is faced with just as great a
difficult a problem as the working class. The provision of hous
for the owner occupier is perhaps of greater national importan
than the building of cottages to rent to those who are not p
pared to buy the house they require. The principle of eve
man his own landlord should have a prominent place in t
housing policy of the Government.

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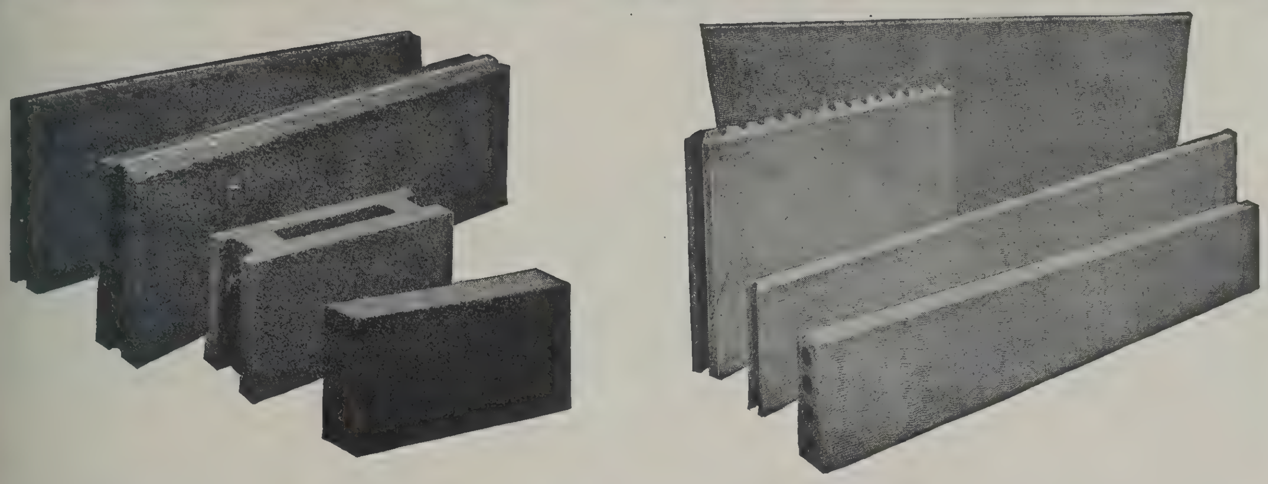

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The Ideal Home Exhibition, Olympia.

The foreword to the catalogue claims with perfect truth that the seventh "Daily Mail" Ideal Home Exhibition is an even more remarkable achievement than its successful predecessors. Two features are especially signalled out, the Bungalow Town in the new extension and the Royal Gardens in the Annexe. These Royal Gardens again offer a welcome retreat, and a perfect contrast, from the hurly-burly of the main hall; though whether the intrusion of music, as conveyed through projectors from the bandstand in another portion of the building, is an improvement may be open to argument. Many visitors familiar with Olympia will be interested to see the new Hall erected against its south wall. This has afforded an opportunity for erecting a dozen or so full-sized bungalows or small houses which are built, equipped and furnished exactly as on permanent sites; not to mention the inclusion of such things as cows, pigs and poultry, which doubtless are comprised in some people's dreams of an ideal home.

In this Bungalow Town the "sites" are necessarily restricted. Messrs. W. H. Gaze & Sons, Ltd., of Kingston and 10 Conduit Street, W., have contented themselves with arranging their space as one room (a "Bedroom of the Future") and a strip of garden. The result is unquestionably effective. In the bedroom the usual wardrobe is replaced by corner cupboards, while the fourth angle is occupied by a built-in washstand with cupboards above. Grey, yellows and mauve contribute to a striking and cheerful colour scheme, while further originality is shown in such fittings as the lighting fixtures, the bed alcove and the curved dressing-table. Within twenty-four hours of the opening ceremony the standard bungalow of Bell's Poilite and Everite Co., Ltd., was marked "Sold"—the price as exhibited being £495, with an extra £20 if delivered and erected within fifty miles of London. We will be surprised if there are not many other sales of this attractive little dwelling. A pair of semi-bungalow cottages represent the system of the Interloc Construction Co., Harrow, which has been successfully on the market for many years and consists of timber framing filled in with the patent brick cavity blocks. It is appropriate that the greenhouse, summer-house and other aids to horticulture exhibited by Wm. Duncan Tucker & Sons, Ltd., should be in the immediate vicinity of Bungalow Town, because they form such an effective trimming to any ideal home.

There is a good deal of practical wisdom in so allotting the floor space that there are grouped together related sub-divisions of what go to make up a home. This method gives an air of coherency to what is apt otherwise to be confusion. Yet it need not beget monotony, because these sub-divisions are themselves sufficiently broad to include many contrasting trades. The second section, for example, as set forth in the catalogue, is "Decoration, Construction and Sanitation." Under this comprehensive heading and in this portion of the main hall the visitor finds in close proximity such unlike exhibits as roofing tiles, paints, woodwork, sanitary ware, concrete plant, wall papers, telephones, electric and gas appliances, heating appliances, and geysers. The demands upon our space will not permit of a detailed reference here to all the exhibitors in this section, important though it is to our readers. Many of them are both familiar and of proved worth, so little more than a mention of the name is necessary to suggest their stands. Messrs. Doulton & Co. (Stand 79, ground floor, main hall), for instance, will always suggest the best sanitary equipment—whether it be a complete bathroom in "Keramos" colour ware, "Lambeth" deep sinks, or anything else of that nature. George Jennings, Ltd., are another firm of sanitary specialists and manufacturers who strengthen a secure reputation by a good display at Stand 76 of baths, closets, lavatories, cisterns, and similar appliances. Adjoining this stand is a display by George Jennings and Thos. Wragg & Sons of salt-glazed stoneware drain pipes, white glazed connections and other things necessary in modern drainage, as well as enamel bricks in various colours. The Lewbart Manufacturing Co., Ltd., are showing one of the sanitary novelties of the exhibition in the form of their Lewbart Disinfector for use in connection with water closets: visitors to Stand 80 will be able to examine for themselves the many good points about this ingenious contrivance, of which we gave an account last week. The well-known excellent effects obtainable with Solignum, both as stain and preservative, are to be seen on Stand 65 of Messrs. Major & Co. Among the paint firms are Walpamur Co., Ltd., whose "Duradio" gloss paint, "Mirabol" enamel, and "Walpamur" water paint are effectively shown on Stand 84. Messrs. G. A. Harvey & Co. (London), Ltd., have on the adjoining stand a selection of their steel furniture, which is intended for both the home and the office—a special feature being made of the "Service" wardrobe finished externally as mahogany. The Rawlplug Co., Ltd., are fortunate in having something which makes an nstant appeal to the passer-by; there must be few who have not had painful experience of the weakness of the old-fashioned wall plug, and fewer still who are uninterested in watching screws fixed securely and directly into such materials as glass, brick or concrete. Wall papers are not largely represented. The Wall Paper Manufacturers, Ltd., have specimens of their Anaglypta, Lincrusta, Lignomur and Cameoid Branches, which can produce effects to resemble wainscot oak, mahogany, leather, damask and brocade, as well as making the effective material known as Anaglypta; a portion of their stand is arranged very effectively as a small entrance hall in the Jacobean or Tudor period.

One of the most charming exhibits at Olympia is the miniature two-storey house designed by Mr. Leonard Williams, F.R.I.B.A., which is to be seen on Stand 7 in the Royal Gardens. Messrs. Gilliam and Co., garden stone specialists and quarry owners, 8, Queen Street, E.C., have introduced "Biddeston" natural stone roofing with charming effect. "Bryscom" coursed rubble walling is used up to the first floor and a stucco of white Manx spar above. This firm, we may here mention, has recently reopened one of the old Somersetshire stone roofing quarries.

Another section which particularly concerns our readers is that devoted to Heating and Lighting. Arranged on the ground floor of the main hall, it follows on the one we have just dealt with. The first stand (No. 82) is that occupied by Jones & Attwood, Ltd., who give special prominence to their "Domestikatum" boiler, which combines abundant hot water together with facilities for simple cooking. This firm also show their "Batheater" apparatus, "Cultivatum" and "All-night" boilers for greenhouse and garage heating, and the "Bonfire" boiler. Messrs. Sidney Flavel & Co., Ltd., make an imposing display of cooking and heating appliances. It would be interesting to see side by side the kitchener which they introduced over a century ago and their latest Leamington pattern. That this firm are no less alert to-day than they were when they superseded the Yorkshire range is proved by the ceaseless improvements and additions they are making to their goods, whether it be gas radiators, hob grates, portable stoves or combination grates. Mr. Thomas Potterton, Balham, S.W., has a working demonstration on Stand 103 of the "Victor" gas boiler combined with circulating radiators. The "Victor-Combination" boiler will use coke or other smokeless fuel as well as gas. Sectional boilers and applied equipment are also on the stand. The latest pattern of the "Foresight" combination range made by Samuel Smith & Sons, Ltd., of Smethwick, has two good-sized superimposed ovens; and in addition to the usual swing trivet and recessed hob plate over the canopy there is a second hot plate over the upper oven and extending the full width of the range, thereby allowing of a very large number of utensils being in use simultaneously. The "Foresight" combination range has achieved considerable success for its appearance as well as its practical qualities. Messrs. Bratt, Colbran & Co. and the Heaped Fire Co., Ltd., show their familiar barless "Heaped" Fire in action on Stands 146-7. The "Interoven" convertible cooking and heating stoves declared war against the small kitchen range some thirteen years ago, and have now firmly established themselves all over the country. The Interoven Stove Co., Ltd., now make a "Super" pattern with a larger oven and a boiler which can heat a cylinder or tank up to fifty gallons capacity. On the next stand Robert Jenkins & Co., Ltd., show in actual use their "Eco" combined hot water boiler and gas cooker connected to a "Kal" double hot water tank and heating a radiator and a hot water tap. Other boilers and appliances of this firm may also be inspected. Messrs. Smith & Wellstood, Ltd., make an excellent representative display of ranges, stoves, boilers and fireplaces on Stand 140. Messrs. Candy & Co., Ltd., being not only the proprietors of the "Devon" fire, of which there are three types, but also manufacturers of tiles, surrounds, panels and kerbs, are able to show on Stand 96 an excellent thing in a variety of excellent settings. Their "Wescontree" ware, or decorative pottery, is represented by some attractive pieces. The London Joint Gas Exhibit on Stand 90 is an exhibit by eight principal London gas companies to illustrate the multitudinous ways in which gas can serve the home.

Messrs. Allan Ure & Co., Glasgow, exhibit on Stand 122 their "Back-to-Back Living Room Grate and Scullery Cooker," which, as its name implies, shows an open fire in the living room while the oven and hot plate are carried through to the room on the other side of the wall. This patent has been successfully used in many housing schemes. The fire is designed on scientific lines so as to do a considerable amount of work with the utmost possible economy in fuel.

The gallery of the main hall has, perhaps, more to interest the housewife than the house builder, for its contents are grouped under the phrase "Labour-Saving Section." Some of these are

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Drawing by Leonard Squirrell, R.E.

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more strictly domestic than others. Ingenuity has for many years been busy in this direction, though it might sometimes be supposed that the labour-saving idea is a new one inspired by women's suffrage. "Ronuk" sanitary polish, for example, has long been a boon and a blessing; on Stand 92 Ronuk Ltd. show their floor polish, furniture cream and a simple polisher attached to a 4-ft. handle. Messrs. Rippers, Ltd., Castle Hedingham, devote part of their great resources to the manufacture of combined dressers and tables, revolving cupboards, an ingenious step-chair and a nursery cabinet. These may be seen on Stand 46. Curtains being an almost essential feature of a home, there is plenty of scope for the "Helixo" revolving curtain rod, Stand 50, which makes their manipulation a matter of mathematical nicety and perfect ease; it is shown by the "Helixo" Curtain Rod Co., Gresse Street, W.

Ferodo, Ltd., might almost claim to have the largest single exhibit, for their material has been used on the big temporary staircase which gives access to the gallery above the main hall. Ferodo patent stair treads and Feroleum nosings may be inspected more closely on Stand 72.

Manchester Building Trades Exhibition.

On Tuesday last there was opened at The City Hall, Deansgate, an excellent display of materials and machinery, goods and plant, directly connected with the building trades. It has been organised by the Provincial Exhibitions, Ltd., and they are to be congratulated both on the quality and the quantity of the show.

An enterprising feature of the exhibition was the holding of two competitions for architectural students under the age of thirty and employed or resident within the area covered by the Manchester Society of Architects. The results were announced on the opening day. In Class I, for measured drawings, the first prize of £40 has been awarded to R. A. Cordingley, of Manchester University School of Architecture, who submitted twenty-two sheets chiefly of Pazzi Chapel and the Riccardi Palace at Florence and a set of measured notes of choir details at S. Maria dei Miracoli, Venice. The second prize of £30 goes to R. Briggs, of the same school, for three sheets devoted to the Pantheon. Class 2 was for architectural sketches, and here likewise the first prize of £20 has been awarded to R. A. Cordingley for his six sheets, most of which are of North Italian subjects. The second prize, £10, was won by Mr. G. G. Quarmby, whose numerous sheets include buildings in Rome, Venice, Kings Lynn, and is San Lorenzo.

Messrs. D. Anderson and Son, Ltd., of Stretford, London and Belfast, on Stand 65 show samples of their well-known "Red Hand" roofings. These include the "Rok" brand, which is a permanent self-finished bitumen roofing; "Ferro-Rok," which is a combination of "Rok" and steel; "Stoniflex," a light permanent roofing made in three thicknesses, and "Hippo," a light roofing for temporary buildings. Other exhibits are a model of their "Belfast" lattice girder roof, fencing treated with "Sidol" wood preservative and "Bondex" plastic compounds.

The Interoven Stove Co., Ltd., 156, Charing Cross Road, W.C.1, warn architects to specify clearly "Interoven—Pascall's Patent" as a safeguard against imitations, which fail to imitate the success of this original. Most of our readers must be familiar with this combined cooking and heating stove, which was the pioneer of its class and of which more than sixty thousand are in use. However, the company are not content with their abundant laurels. The "Super Interoven" which has now been added to their list extends the sphere of usefulness, for it includes a larger oven flanked by two hot closets, and a boiler which is capable of working a 50 gallon tank or cylinder instead of the previous 35 gallons.

Messrs. Hutchison and Co., merchants and agents, of Manchester and Liverpool, have two stands. On No. 71 a good display is made of the various classes of facing brick manufactured by the Buckley Junction Metallic Brick Co., Ltd., at their works near Chester where they possess a remarkable bed of vitreous shales. All the goods are of high quality, whether it be their "Jacobean," their sand-faced or their rustic bricks; it is claimed for each that they are impermeable, imperishable and permanent in colour and texture. Particularly pleasing is the "Jacobean" which has a charming variety of colours and gives an excellent effect. The samples of "Vitrolite" on the stands represent a material which has gained a wide use for wall linings and ceilings, non-absorbent and acid-proof counters, table tops, shelves, fascias, etc.; it is cast in sheets up to 10 ft. by 3 ft. and in thicknesses of $\frac{1}{4}$ in. to 1 in. by the Vitrolite Construction Co. (Europe), Ltd.

On Stand 84 the Art Metal Equipment Co., Ltd., 186–188, Shaftesbury Avenue, W., are represented by a small selection. Their steel rolling single shutter is similar to what has been supplied to such large West End premises as Selfridges, the Louvre de Paris, and Peter Robinson's—it is self-coiling, and the flat interchangeable slats are worked on ball-bearing races. Among the steel furniture exhibited is shelving, clothing locker, cupboard and filing cabinet. Another interesting item is their Ameco Carborundum non-slip surface stair nosing and treads which is also made for use as thresholds and floor plates. Messrs. Hutchison have also on exhibition the enamels and paints manufactured by Gross Sherwood and Heald, of Barking.

Though the Alundum Safety Tile only recently came to this country from the United States it has already secured an assured position on the English market. In America it has for many years been laid down for all kinds of buildings where the floor traffic is heavy and a slip-proof and durable surface is needed. An eloquent testimony of its quality is the fact that the tiling has been supplied for tramcars in busy towns like Salford, Huddersfield, Bristol and Birmingham. Mention should also be made of London work at the Victoria Station (Underground) and at Wembley. The slipping hazard of a terrazzo floor is eliminated by the use of Alundum aggregates in a half and half combination. Samples of both the tiling and the aggregates may be seen at the stand in the gallery (close to the architectural drawings) of Messrs. Charles Churchill and Co., Ltd. Alundum can be supplied in all standard sizes and shapes for tiled or mosaic floors, as treads for stairs of all types, as broken aggregates, or as precast aggregate tiles.

On Stand 61 Messrs. W. R. Pickup & Co., Ltd., of Horwich, Lancs., are exhibiting a fine selection of their well-known enamelled sanitary fireclay ware. Their goods, manufactured under the "Stonite" trademark, are all made on the most hygienic principles, clean in design, and all being of heavy fireclay are eminently suitable for both public and private uses. The glazing is fully guaranteed against crazing and peeling. They show a white enamelled fireclay bath with the usual fittings at the end or alternatively with shower fittings, and supply also three different types of urinal ranges, several types of lavatories, both for fixing on brackets and legs and also on pedestals, the latter in particular being fine examples for high-class bathrooms. Also several types of closets—the Sapphire, suitable for the best class of work; the Pike, for positions where strength is the consideration, such as for outside positions; and the Beryl, in two smaller sizes for school use for either infants or children. Owing to limitation of space they can only show one or two examples of sinks, of which some hundreds of sizes are made, but the types shown, which include the combination "Belfast" and "London" patterns, are typical of their output in this line. The range of washtubs shown are very useful and labour saving appliances and worthy of wider use in this country. Messrs. Pickup also manufacture hospital fittings in great variety, and one or two examples are shown, such as a surgeon's lavatory, a slop hopper and a bedpan and bottle sink. Their allied firm, The John Crankshaw Co., Ltd., are makers of salt glazed drain pipes, from 3 inches to 36 inches diameter, gullies, etc.

The Aerograph Co., Ltd., whose head office is at 43, Holborn Viaduct, E.C., have a local depot at 46, Chapel Street, Salford. At Stand 33 interesting demonstrations are given of the system of spray painting, of which they are the pioneers, and so visitors can judge for themselves as to its merits more satisfactorily than by any leaflet or even through the eloquence of a representative. Similar methods are arranged by appointment at the London showrooms. The fact that since its appearance thirty years ago the aerograph has been utilized by practically every trade which can do so is in itself a notable testimonial. The invention is capable of adaptation to special requirements. A recent development of the company is in the organisation of a Service Department.

Marbello, Ltd., Birmingham, display their products very effectively on Stand 14, which is arranged as a Doric pavilion and makes a good setting. The company are working in terrazzo, mosaic, marble, ceramic, glass mosaic, marbello floors and granolithic. Special attention should be paid to the terrazzo as executed in a variety of plain and mixed colours with borders and patterns for floors and dadoes. Marbello composition flooring has been laid in some particularly big jobs, and is recommended for covering old and worn floors in factories, mills, offices, etc.

AUSTRALIA HOUSE.
A. Marshall Mackenzie & Son, FF.R.I.B.A.
Architects.

From an original Etching by
Christopher M. Shiner.

REDPATH BROWN
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WORKS AND STOCKYARDS

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The Educational Supply Association, Ltd., 40-44, Holborn Viaduct, E.C., have enclosed the four sides of their stand, No. 70, with four "Esavian" patents: on one side is their folding window, on another a folding garage door, a third shows a shop front, and the fourth a folding partition. A distinctive feature is the introduction between each pair of leaves of a sliding mullion on which the leaves are hung. There are some interesting photographs of a big bow window, with a 7 foot 6 inch radius, fitted for Mr. H. G. Wells at Easton Glebe, where the Esavian window can be tucked away against the side walls so as to leave an entirely unobstructed view. The firm are prepared to cope with the most difficult of requirements. A frequent necessity is to fix removable cills for a partition so as to leave a perfectly flat floor surface when the partition is open. Ease of working is a characteristic common to all their fitting.

Messrs. Williams & Williams, of Chester and Manchester, have on Stand 20 a wide range of "Reliance" metal windows, including standard cottage casements, factory sashes, office screens, and high class casements. The fact that seven hundred men are employed at the Reliance Works in Chester is suggestive of the importance of this business. A recent addition to their output is a balance window for places like schools and hospitals where 100 per cent. ventilation is required. Steel and bronze window furniture of all kinds is on the stand. Metal windows when built to standard sizes can now compete on level terms with wood and are growing more and more in favour for buildings both great and small.

Though Low Laithes Colliery Co., Ltd., Wakefield, have been making the "Doric" concrete kerbs but a short time, yet over 10,000 yards of one of their three standard sizes, the 6 inch by 10 inch, were sold last year. We are told that the process has taken more than ten years to perfect. These kerbs are entirely machine made from a 1 and 4 mixture of Portland cement and granulated colliery destructor furnace clinker. The concrete is mixed in liquid form, consolidated by vibration and hardened by steam. On Stand 6 the finished product may be viewed and admired for its finish and low cost.

The Leyland and Birmingham Rubber Co., Ltd., of London and Manchester and other branches, feature rubber tiling on Stand 40, though a range of their other products is also on view. The tiling is made in $\frac{1}{8}$ inch, $\frac{3}{16}$ inch, and $\frac{1}{4}$ inch thicknesses, and in any combination of colour; it may be laid on wood, concrete, or in fact on any level foundation. A somewhat unexpected recommendation comes from an experience after laying in St. Michael's, Cornhill, where it was found that the acoustic properties had become greatly improved. Nevertheless a rubber floor is *par excellence* a silent floor as is proved by the firm's work in places like Lloyd's underwriting and reading rooms, at Guy's Hospital and in many business premises. Another conspicuous exhibit is the Leyland Rubber Flooring, which is sold only in two thicknesses—viz., $\frac{1}{8}$ inch and $\frac{3}{16}$ inch—and is primarily intended for private houses.

Turner Brothers Asbestos Co., Ltd., Rochdale, devote their stand to the asbestos products made at the Trafford Park Works. Turners' Trafford Tile, made of asbestos and Portland cement, is especially recommended for application to industrial buildings and can achieve a considerable saving if the roof is designed for the material. The standard size is 4 feet long by 3 feet 8 inches wide for fixing to intermediate purlins at 3 feet 6 inch centres with a horizontal lap of 6 inches. These tiles are fixed direct to the purlins, thus displacing rafters, battens, or close boarding. A new development of this firm is the "Endurol" Tile (registered) for domestic buildings; it will shortly be put on the market in a warm russet brown colour. Asbestos cement roofing slates, suitable where natural slates might be used, are shown in grey, blue and red. Lastly, mention may be made of their asbestos cement building sheets for external and internal walls, partitions, etc.

The Linolite Composition Flooring Co., Manchester, are able to say that Linolite jointless floors have stood the test of fifteen years' hard wear and are still giving entire satisfaction. This composition is laid in a plastic state; though it hardens within forty-eight hours, it should not be polished for a fortnight. The exhibit on Stand 66 consists of sample blocks, cove skirting, etc.

Mason's Patent Treads, which have been laid in 100,000 buildings, may be seen on Stand 52. The Safety Tread Syndicate, Ltd., inform us that they have again secured the contract for the exclusive supply of non-slipping stair treads to the War Office, and that they also are supplying to the Admiralty, the Office of Works, and other Government Departments. The firm, however, specialise in stairwork in all its branches.

The Patent Tip-up Bath Co., Birmingham, are the firm which sells Darby's well-known space-saving bath, as supplied to a large number of housing schemes. They are made in seven sizes lead-coated steel sheets and are strongly riveted along the wa section. On Stand 41 they are to be seen associated with "Hurry" furnace and the "Hurry" water heater.

The "Hurry" Water Heater Co., Birmingham, make on Sta 48a a good display of their water heaters and their furnaces, bo of which are designed to work with a minimum consumption gas—the mixture being 6 parts of air to $2\frac{1}{2}$ of gas, and representi a 50 per cent. saving over the ordinary geyser flame.

Messrs. W. W. Hill, Son & Wallace, Ltd., of Salford, who on Stand 3, are experts in labour-saving high-class materials decorating and protecting all materials used in building structu from the woodwork to the brickwork. They have here a go and representative display of such specialities as paints, drie mastic cement, enamels, stains, stoppings, wood preservativ knotting and varnishes.

Ferodo, Ltd., Chapel-en-le-Frith, state an undeniable fa when they point out that many accidents, some of them fat occur annually through people slipping on worn, wet and dang ous stairs. Their remedy is "Use Ferodo on the front of tread"—the material which is made of cotton and yet aft treatment wears better than cast iron. On their stand, No. is a piece of Ferodo taken from the Oxford Circus escalator a on which fifty million feet have trod; to all appearance it is no the worse for the traffic. Moreover its extraordinary frictior properties make a slip almost impossible. The exhibit incluc a large number of models showing various types, colours a thicknesses. Feroleum Fibrous Flooring, consisting of toughen strands of Ferodo bonded with pure rubber is a development the other material and can likewise be obtained in numero colours, either plain or corrugated.

Saunders & Taylor, Ltd., Manchester, issue an abridged list heating installations which they have carried out as enginee It is a most imposing document both for the number and t importance of the buildings. On their stand they have prac cally confined themselves to appliances suitable for domest work. For instance, there are two "Cookanheat" stoves whi not only cook but heat radiators and water for domestic suppl and also "Ideal" boilers and radiators. An interesting ite is the latest type of large cast-iron sectional boiler, special designed for the Manchester district.

Moule's Patent Earth Closet Co., Ltd., $1\frac{1}{2}$, Guilford Street, W. make a good display on Stand 26, though only nine out of the thirty designs are exhibited. As the original inventors they ha in the course of half a century built up a unique reputation f this branch of sanitation. Each design may be obtained with "Pull-out" action or a "Pull-up" or a "Self-acting." It pleasant to see that the prices have been reduced since t beginning of the present year.

Musgraves (Liverpool), Ltd., Manchester, London and Live pool, have brought on to Stand 85 a representative selection their sanitary ware manufactures—most being in their porcela enamelled "Invicta" fireclay ware. One fine specimen is combined surgical sink and lavatory made in a single piec 72 inches long. Another good example is a shampoo lavator basin with a projection of 26 inches. Conspicuous on a corner this stand is Musgrave's food locker in patent white porcela enamelled fireclay which has a mahogany door and frame an shelves of galvanised wire. Measuring 38 inches by 20 inches b 14 inches, it is meant for building into walls where the saving space is a special consideration.

On the stand of W. T. Nicholson & Clipper Co., Ltd., Ma chester, may be seen the "Warrington" bond-iron which ha for a good number of years been made by the "Warrington Bond-Iron Syndicate. This steel tie obviates the necessity through headers in faced walling, also that of clipping the brick as it can be easily bent to fit into the courses. It is made in an length and strength for cavity or solid work.

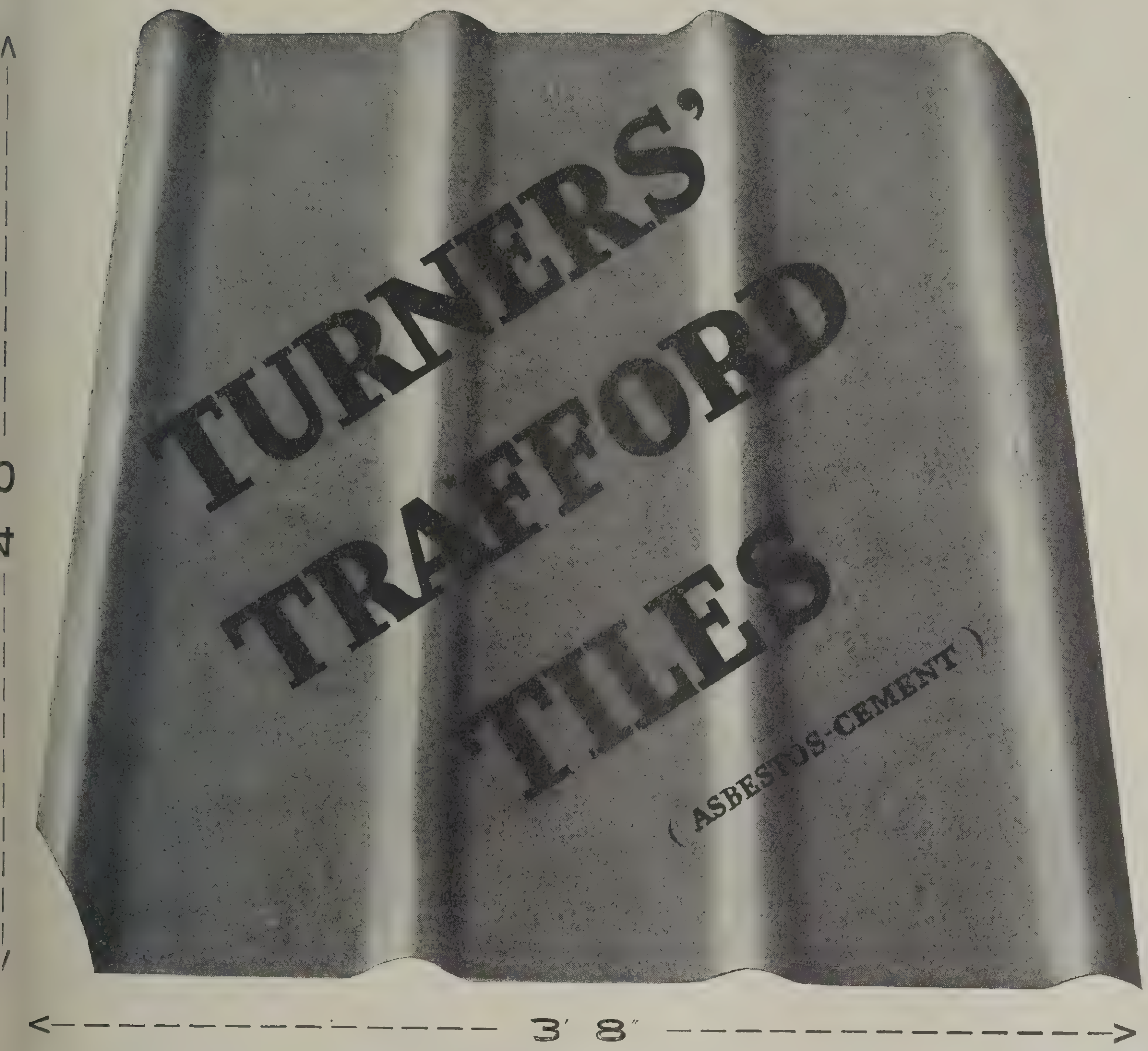
Messrs. Thos. Parsons & Sons—who have opened a new depo at 10, Albert Street, Manchester—bring to Stand 42 a representa tive collection of their enamels, varnishes and paints, includin the widely known Endelline enamel. Demonstrations are give with Parsons' Colourmeter, a machine which will produce an shade of colour. Any of the colours can be reproduced in th firm's gloss or flat enamels.

Brightly polished copper is the prevailing colour note o Stand 48, where Thomas Fildes, Manchester, exhibits a variet of water heating apparatus. This includes both public an domestic requirements.

Two very attractively equipped bathrooms constitute th stand of Shanks & Co., Ltd. One feature of it is the lates Albany siphonic closet in white vitreous china which has it cistern at a minimum height above the floor for use in speci circumstances. The cistern has also a minimum projection fro the wall. A patent ball tap ensures silence in filling.

W. T. Glover & Co., Ltd., show on Stand 81 their patent ro

Cover your ROOFS with



Now being Exhibited at the
MANCHESTER BUILDING TRADES EXHIBITION

STAND No. 55

Turner Brothers Asbestos Co. Ltd.
Manufacturers **Rochdale**

glazing. In this process the steel bars are passed through a bath of preservative compound and are simultaneously sheathed with pure virgin lead applied direct to the bars by hydraulic pressure. This renders them proof against corrosion. The firm's engineering department undertake the erection of the glazing.

Liverpool Electrical Accessories Co. are giving on Stand 27 continuous demonstrations of "Rawlplugs," those little fibre tubes which are capable of affording such a prodigious grip to a screw and are so much better than the old wood plug. Another feature is the "Rawlplug" aluminium fittings which are offered at rock-bottom prices.

A charming stand has been designed to display the "Old Delabole" Slates, of which the sole selling agents are Messrs. Setchell & Sons, Ltd., of Manchester. The external walls and roofs comprise the grey slates, the green randoms and the red rustic randoms—all of great charm of colour.

At Stand 37, Marryat & Scott, Ltd., 28, Hatton Garden, E.C., are showing an electric goods lift erected in a self-supporting steel structure with panelled mahogany enclosure at the ground floor level. The patent push button control is arranged in such a manner that the visiting public have ample opportunity of inspecting the safety features of the system. There is also shown in operation the company direction indicator, safety gate locking device which they claim is the most reliable yet produced, the M. & S. Trip Indicator and other specialities. Mr. Townend, the firm's Manchester agent, is in charge.

General.

Mr. William Henry Drewett, builder and contractor, of Clevedon, Wilts, died last week.

The death is announced of Mr. ex-Bailie Thomas Stuart, J.P., builder and contractor, of Glencottar, Seafield Avenue, Keith, Elgin, N.B., in his 70th year.

Sketch plans for a proposed elementary school in Badsley Moor Lane, Rotherham, to accommodate 250 pupils, have been sent to the Education Department for approval.

Mr. L. J. Veit has been appointed Westminster city engineer and surveyor at a salary of £1,000 per annum, rising by annual increments of £50 to £1,200, together with residence.

Skegness Council have accepted the tender of Messrs. Lane Brothers, of Mansfield, for the enlargement and modernisation of the town's sewage disposal works. The cost will be £14,957.

The City Corporation, as trustees of the Bridge House Estates, have let a site at Adelaide Place, London Bridge, to the National Metal and Chemical Bank, Ltd., at a ground rent of £10,250 per annum.

The Liverpool Education Authority have given formal notice of their intention to enlarge the Townsend Lane Council School by providing temporary additional accommodation for about 150 children.

Messrs. A. Brocklehurst and Co., of Manchester, have prepared the scheme for a mission hall which is about to be erected at Ashington in connection with the Wesleyan Methodists at a cost of about £18,000.

The Town Planning Institute propose to arrange a ball on Thursday, April 12, in aid of the Library Fund. The Royal Institute of British Architects have promised to lend their galleries for the function.

Bristol Sanitary Committee have accepted the tender of Messrs. W. Cowlin and Son (£14,986) for covering the River Froom, in accordance with a scheme adopted by the City Council. This was the lowest tender submitted.

Dudley Town Council have sanctioned a scheme for the erection of a number of municipal houses, the contract price being £320 per house. Eight months ago the same type of house cost the Corporation over £1,000.

Thursday, March 29, is the date fixed by the Royal Academy for receiving architectural drawings submitted for their Summer Exhibition Not more than three works may be sent by any one artist. Labels and forms are to be obtained from the Academy.

The Birkenhead Town Council has decided to devote the legacies of the late Mr. John Williamson and Mr. P. A. Williamson towards the erection of an art gallery, but deferred the question of fixing the site for two months. The amount at the disposal of the Corporation will be about £36,000.

Sir William Joynson-Hicks, in Parliamentary papers, states that the number of houses erected or in course of erection under the State-assisted scheme and under the private builders' grant is as follows :—By local authorities and public utility societies, 176,000 ; by private builders, 39,161 ; and by conversion of huts and hostels, 3,056 ; making a total of 218,217. The statistics of houses erected without State assistance are not available.

It is proposed to erect a 3-kiln cement plant at Abertha near Barry. The cost will be in the neighbourhood of £750,0 and an annual output of over 150,000 tons is anticipated. I believed by the promoters that the cement industry will one of the first to benefit by the general revival of trade.

At the meeting of the Alford Licensing Justices, Mr. Ernest Moliel Tupper, formerly proprietor of the New Bath Hotel Satlock, applied for a provisional licence for an hotel it is propo to erect at Sutton-on-Sea, on the north end of the Sandhills, a cost of £23,000. The justices granted the application conditiona

The Metropolitan Water Board, on the 23rd ult., approv of a scheme involving an expenditure of £1,434,920 for t improvement of the water supply north of the Thames. T chief item of expenditure will be the provision of a 48 in. m from Kempton to Cricklewood—about 12 miles—at an estima cost of £422,500 ; and pumping station buildings at Kempt to cost £125,000. The scheme will make possible a saving about £30,000 a year.

The Belfast Corporation Housing Committee has given structions for the erection of 503 additional houses under t housing scheme. These will be built as follows : 200 in Ulst ville Avenue and Dunluce Avenue, 101 in Whitehall, Orme Road, 78 in Donegall Road, 20 in Cavendish Street, and I in Springfield Road and Falls Road. Three hundred and thr of these houses will be built by private contractors, and t remainder by direct labour.

Mr. Satchwell, of Messrs. Satchwell & Roberts, archite Birmingham, applied to the county magistrates at Evesham, behalf of the Super Cinema and Theatre (Evesham), Ltd., for t approval of plans for a proposed theatre and cinema in Hi Street, Evesham. The capital (£15,000) has been subscrib by local residents, and it is proposed to erect a theatre seat 800 people by August 1 next. The Bench approved t plans, subject to the addition of a further emergency exit.

It was stated in the House of Commons recently that t quantity of granite (unmanufactured and manufactured) reg tered as imported into the United Kingdom from all sour amounted to 463,124 tons in 1921 and to 523,727 tons in 19 The declared value of those imports was £740,577 in 1921 a £718,654 in 1922. In 1921 60 per cent. of the total weig and 40 per cent. of the total value of granite imported w consigned from British possessions. Corresponding figures 1922 were not yet available.

A provisional licence in respect of a new "super cinema which, at an estimated cost of £100,000, it is proposed to erect Edwardes Square, Kensington, was, on the application of Mr. J. Mears, granted on the 16th ult., at a special meeting of t Theatres and Music Halls Committee of the London Coun Council. The committee also decided to recommend the Coun to grant a provisional music and dancing licence for the premis The application was opposed by the Kensington Borough Coun and by residents of neighbouring properties.

The executive of the National Building and Engineeri Brick Federation have passed a resolution urging that t Government and local authorities should co-operate in a syste of subsidies to encourage the provision of an adequate numb of houses, to relieve unemployment, and to remove the existi danger to health and morality caused by overcrowding. T executive also points out that the facilities afforded by Secti 49 of the Town Planning Act (1919) are little known by peop who may desire to become tenant-owners, and suggest extensi advertising of those facilities by the Government.

At the last meeting of the Governors of the Royal Technic College, Glasgow, it was reported by the Advisory Committ consisting of representatives of the University and Colle that full consideration had been given to proposals for t institution of a degree in architecture, and that the followi resolution had been adopted : "The Advisory Committee ha considered the proposals submitted on behalf of the School Architecture for the degree of B.Sc. in architecture, and are opinion that they are worthy of favourable consideration the University and College ; they think that the proposa if approved in principle, would form a suitable basis for a n ordinance."

Under the Government scheme Lancaster Corporation co tracted with the local builders for the erection of 50 houses. T houses have been occupied by tenants for some months, but t contractors have not been paid. At last week's Town Coun meeting the chairman of the Health Committee stated that t delay was entirely due to the Ministry of Health, who had se an expert down six or seven times and who had required t surveyor's staff to be engaged three weeks getting out full deta as to every item used in the construction of the houses and t individual cost. They were now told that the next visit would come from the Treasury. He believed that these m were merely sent down to justify their existence.

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Blame the Architect.

The architect is the universal scapegoat, the enemy of all society. He builds us houses, and builds them wrong; we give him instructions to give us the best of everything, and do not get it, though it was all we wanted. And then the expense of the man! We offer him 6 per cent., and he does nothing but make mistakes. We only want six bedrooms and three sitting-rooms for a thousand pounds, and he says it cannot be done, though the builder round the corner and the housing schemes of various cities hint that it can. Was ever profession, as a profession, more aggravating?

This is the common point of view, and comes home to many hearts. Start a conversation on the evil habits of architects in your railway carriage of a morning and the buzz of conversation will keep the next compartment alive. Try it as a gambit at a dinner party, and your silent neighbour will rise as a trout at a mayfly, with her friend's experiences if not her own. If you are an architect yourself, the results will be a test of your philosophy.

Why is it so? The answer is that it is human nature. A house is, after clothes and food, the least dispensable thing in life, and houses are for ever receiving improvements which wreck their neighbours' peace of mind. "So-and-so has such and such a thing in his kitchen; why didn't Mr. Such-a-one give it to us? An F.R.I.B.A. ought to have known we should like it. Money? That's nonsense; these things can always be done with a little foresight, but I have given up expecting common sense from an architect. Next time I shall build my own house, and then we shall see."

Yes, but what? Try the experiment, and ten to one you will learn a sharp lesson. Indeed, were this simple remedy open to all discontented clients, the golden age of the architect would open before him. The client would find out that cupboards cost money, that central heating may or may not be efficient, and that labour-saving devices may give rather than save trouble.

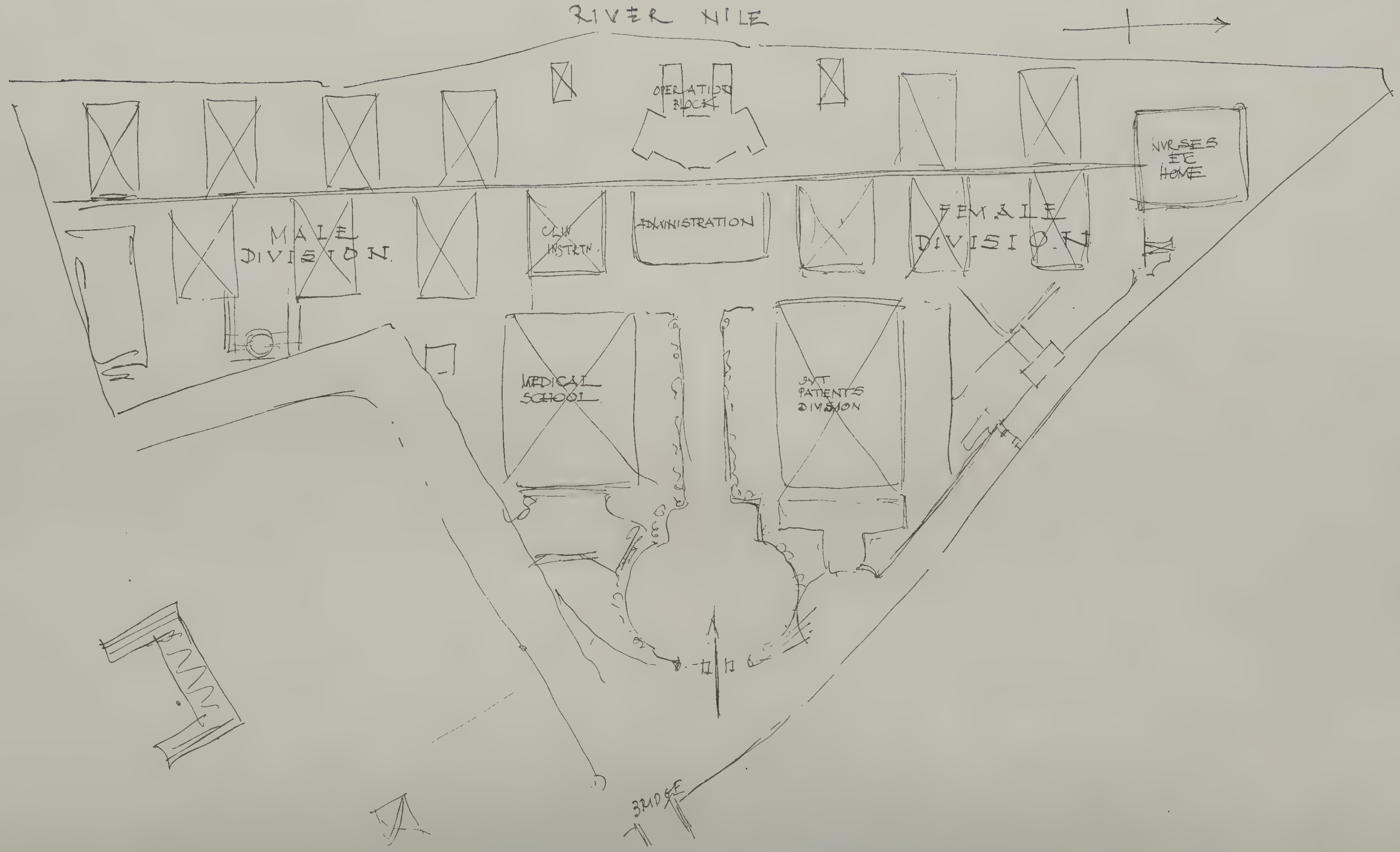
It is an odd freak of human nature that makes a man eager to dispense with the architect's services, to think he could do better without. No one in his senses would omit the services of a solicitor when legal matters are in question; no one of sane mind would resort to a quack when a specialist was available. The buyer of horses and pedigree dogs is wiser, nor is the testing of drains commonly left to the builder. Yet when a house is in question, experience, which is the only test of adequacy, is apt to be discarded or despised, and the specialist, who is the architect, is set aside.

We all know whether or not, in the case of war buildings, such a course was an economy, and the private person might do worse than learn the lesson. To make up your mind that you cannot get everything you want in a house any more than in your profession, and to trust your architect, as you trust yourself, to make the best of what can be got, is the only wise course; and if you make up your mind to it, you will be pleasantly surprised to find that, after all, your architect is human and really wants to do his best. It may then dawn on you that, even if this is an example of John Stuart Mill's formula of enlightened self-interest, it is none the worse for that; indeed, you probably practise it yourself in your own profession, and find that it pays. Once arrived at this pitch of philosophy, other agreeable results follow. Believe in your architect, and he will do better work and take more interest in it and you. He will show you how and why such and such a thing is impossible; he will make attempts to get over your difficulty, to meet your desires; he may even become a friend.

In no department of life is good will of more importance than between the architect and his client, because in none are the consequences more enduring. You may get rid of a tailor's or a shoemaker's misfit with little loss, but a house is a permanent possession whose influence will be felt at every hour. The habit of fault-finding is nowhere more disastrous, because when a house is the subject it is impossible to escape from it. Moreover, the habit spreads. If the household staff hears that everything is wrong elsewhere, it will speedily discover that everything is wrong in the kitchen; and when the staff discovers it the neighbourhood hears of it. The law of libel does not touch the matter, but the architect sees his good name going and has no redress. This is hard, even on an architect, as the least contented of clients will allow, especially when it is through no fault of his own. Brilliant new ideas are apt to mar a house in progress of completion, and the worst of altering the position of the bathroom to get the morning sun is that the drainage may have to be relaid. This is at once expensive and unwise, and heated arguments are a bad basis for successful building.

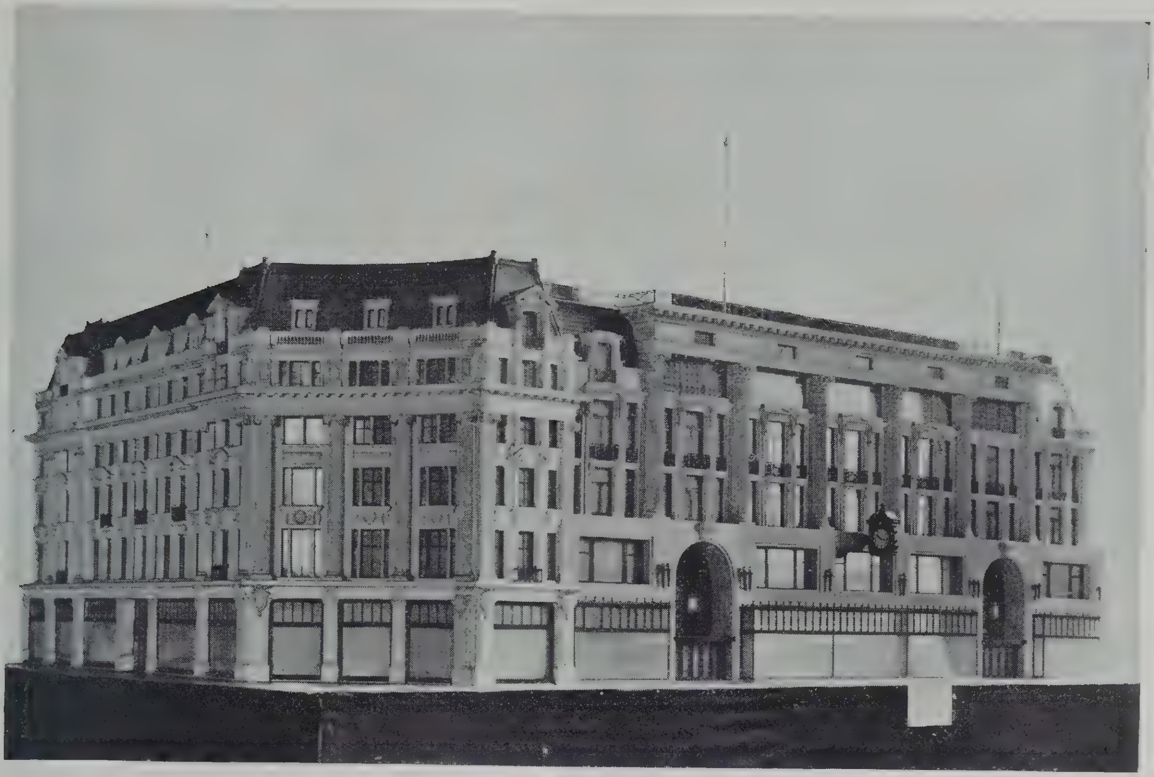
We may add that the architect's position is frequently made a difficult one because many of his clients in moments of enthusiasm embark on an expenditure which they afterwards regret. If they do so it is very human to look on what has been done with a jaundiced eye, and find faults which would have been unthought of were it not for the fact that the client regrets an undertaking for which he is wholly responsible.

But if client and architect can once agree, the case is altered. To make the best of what can be done is the surest road to happiness, and mutual confidence is essential to a good result when one man is putting himself in the hands of another. The consequences are reflected in the house. When once the unattainable is set aside, and the minds of both set only upon making the best of the attainable, it is surprising to see how what was condemned as inadequate becomes both possible and desirable. The builder can no longer play architect against client, client against architect; the clerk of the works finds his task easier; the workmen feel the influence of the unusual harmony. As in the children's game, the consequences are that all are pleased; and the world said, "That's all right."

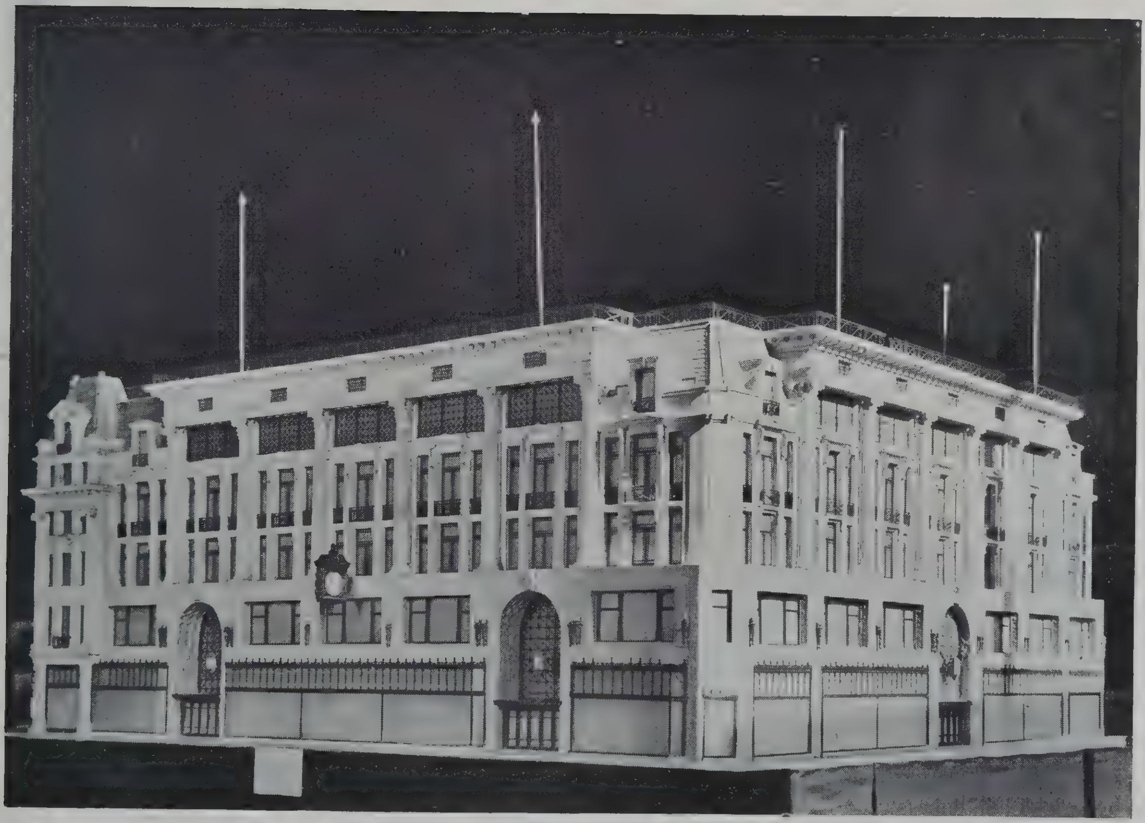


CAIRO HOSPITAL COMPETITION.

General Lay-out of Selected Design by Messrs. Nicholas & Dixon-Spain, Architects



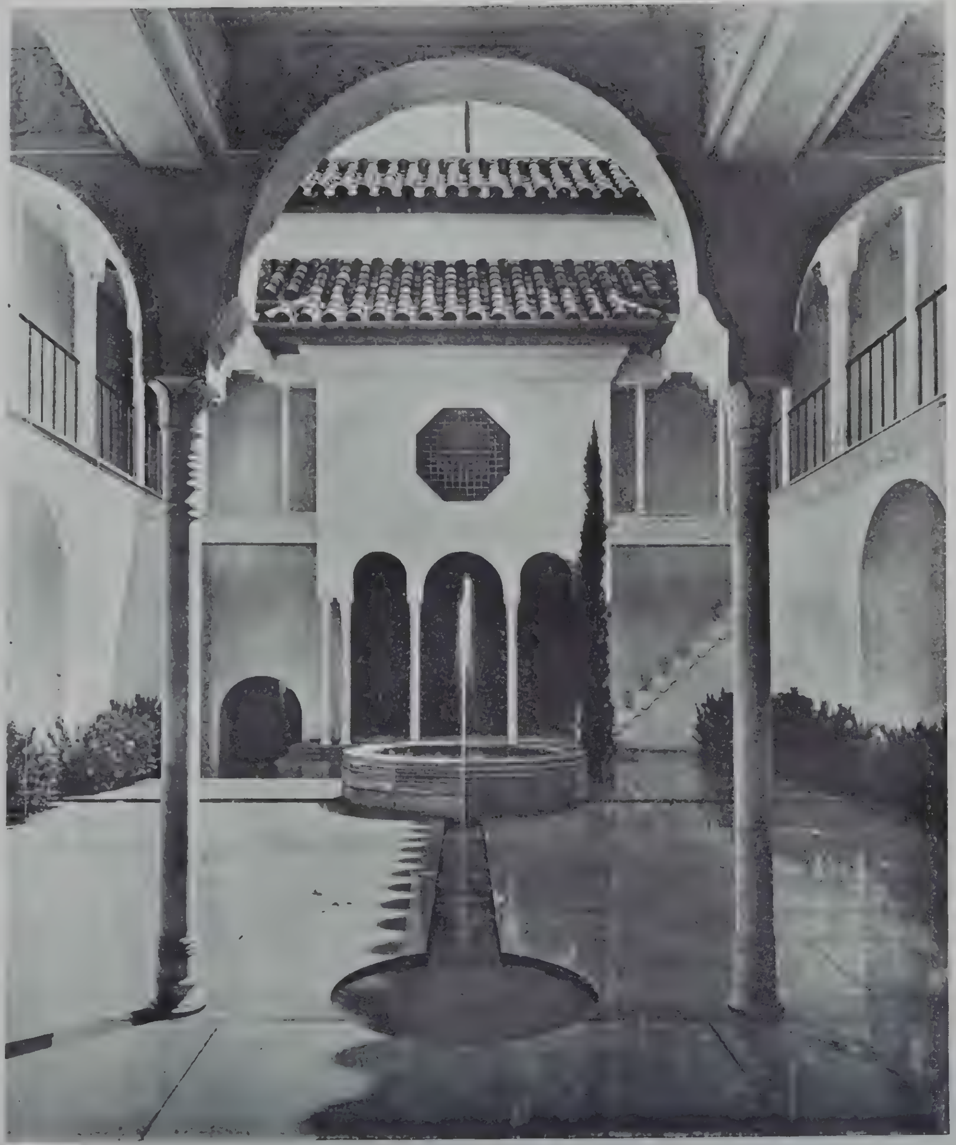
VIEW FROM OXFORD CIRCUS.



MODELS OF PETER ROBINSON'S NEW PREMISES, OXFORD CIRCUS, LONDON W.

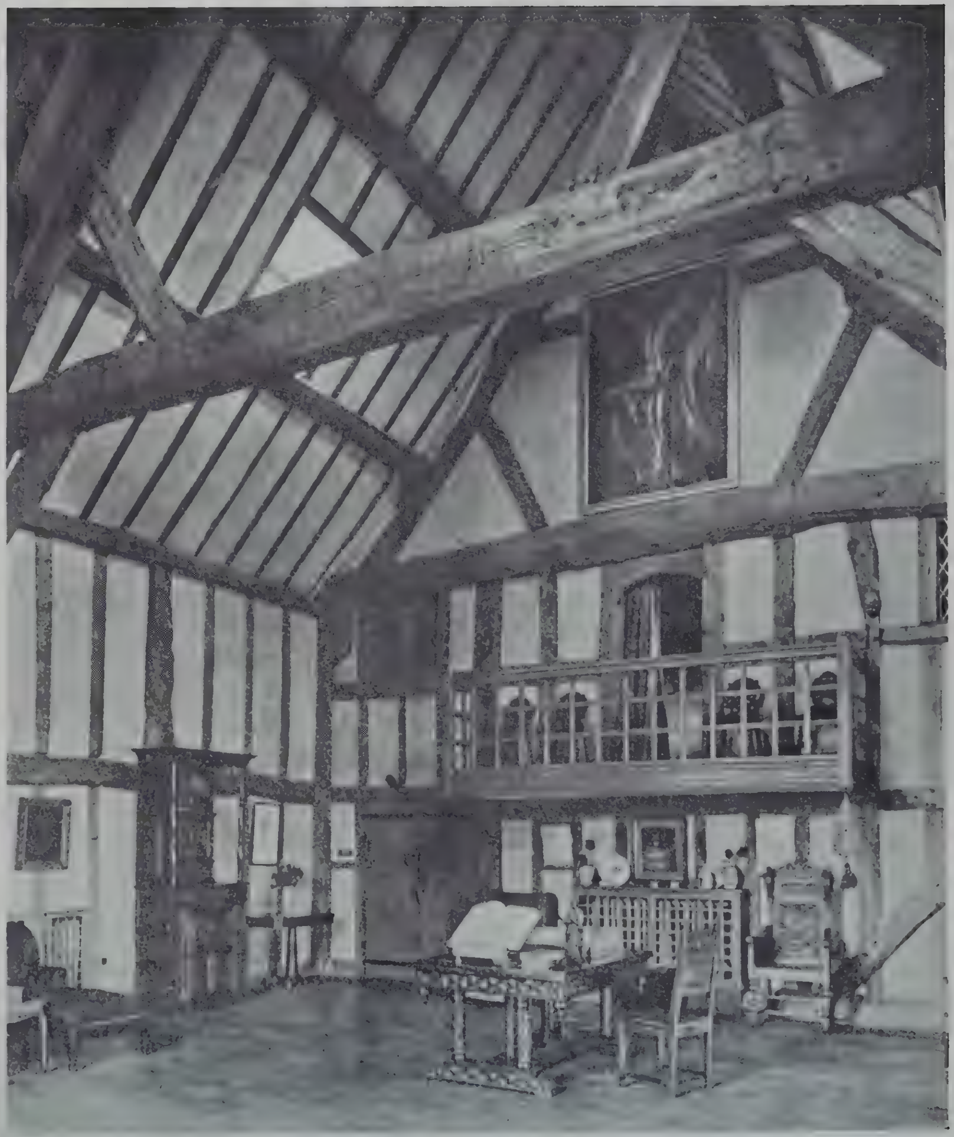
T. P. & E. S. CLARKSON AND H. AUSTEN HALL, ARCHITECTS.

FROM THE ARCHITECTURE CLUB EXHIBITION.



PATIO LOOKING SOUTH, PORT LYMPNE, NEAR FOLKESTONE.

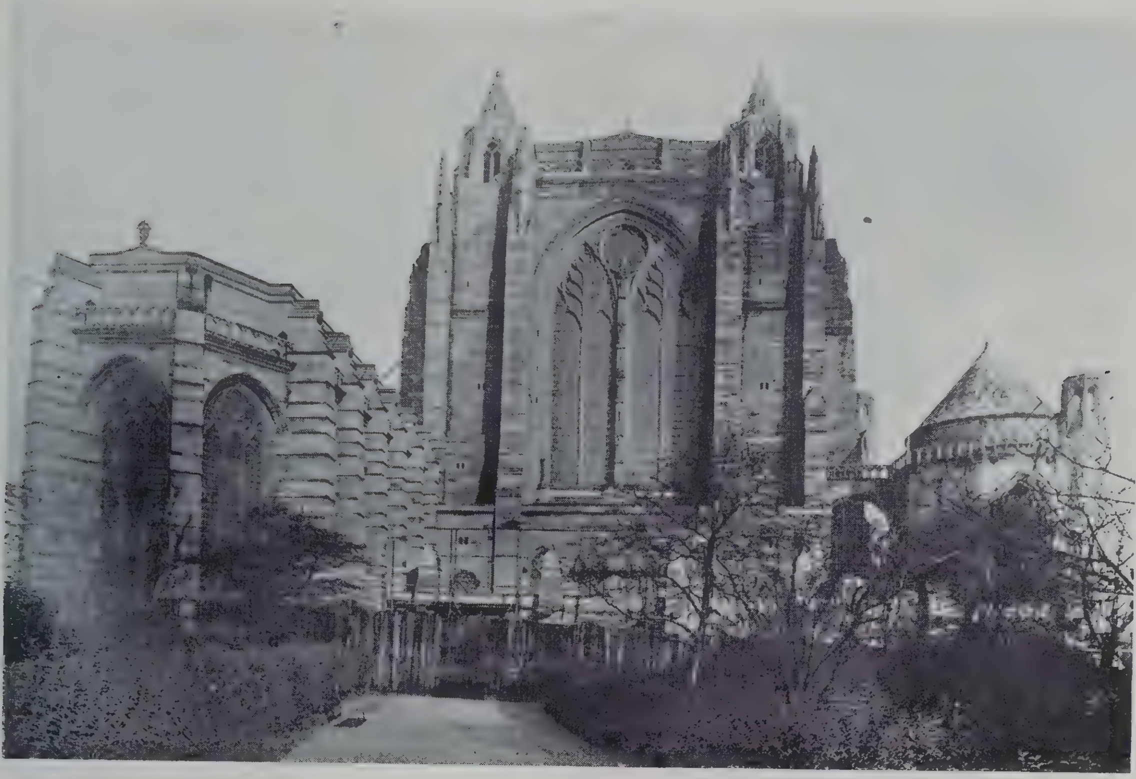
PHILLIP TILDEN, Architect.



INTERIOR VIEW OF "HAMMELS," BOARS HILL, OXON.

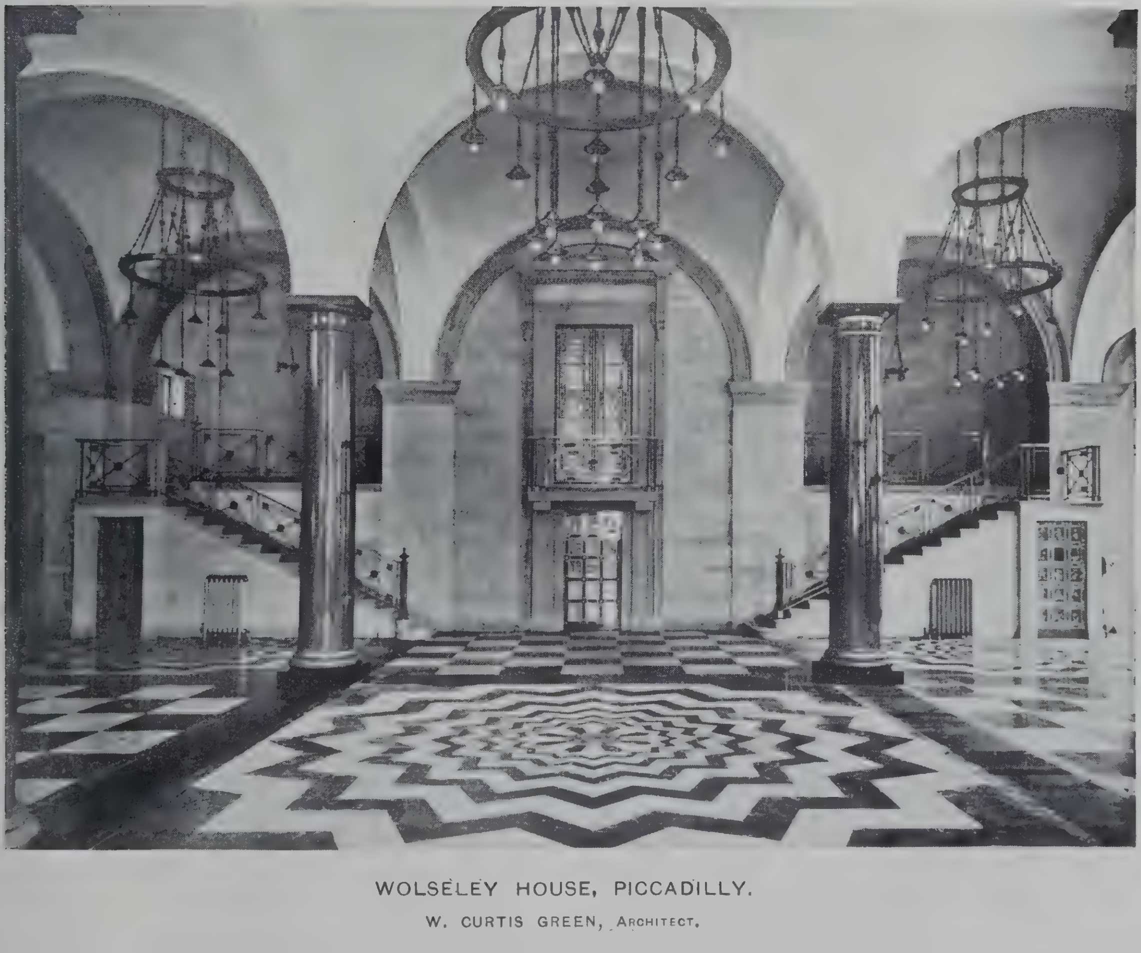
BLAIR IMRIE and T. G. ANGELL, Architects.

From the Architecture Club Exhibition



LIVERPOOL CATHEDRAL FROM THE EAST END.

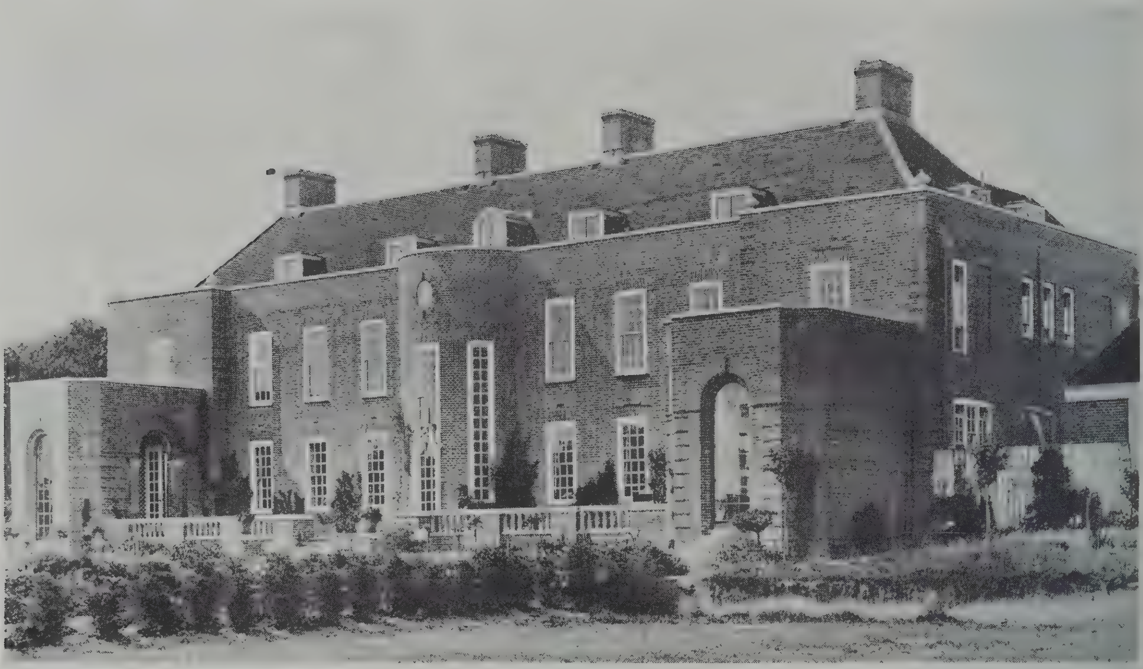
G. GILBERT SCOTT, R A., ARCHITECT



WOLSELEY HOUSE, PICCADILLY.

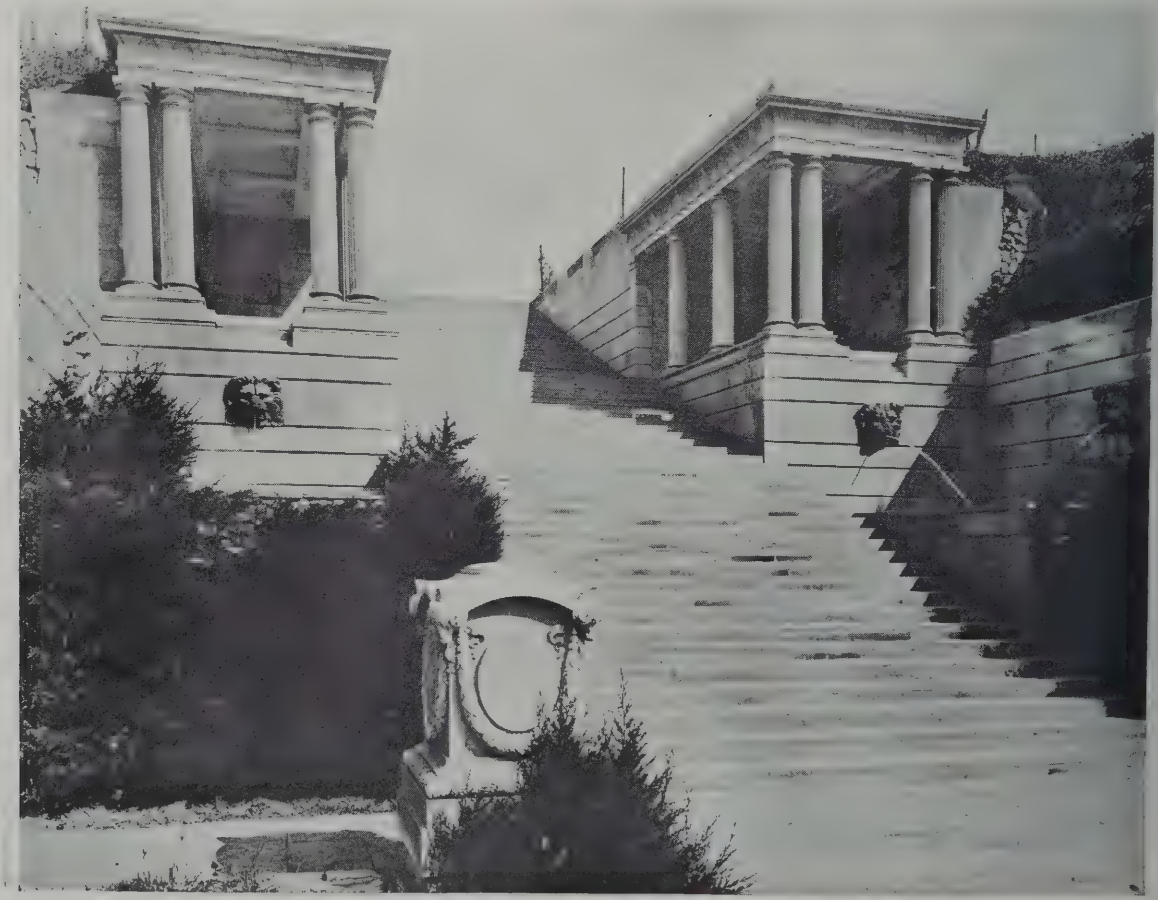
W. CURTIS GREEN, ARCHITECT.

FROM THE ARCHITECTURE CLUB EXHIBITION.



HOUSE IN KENT

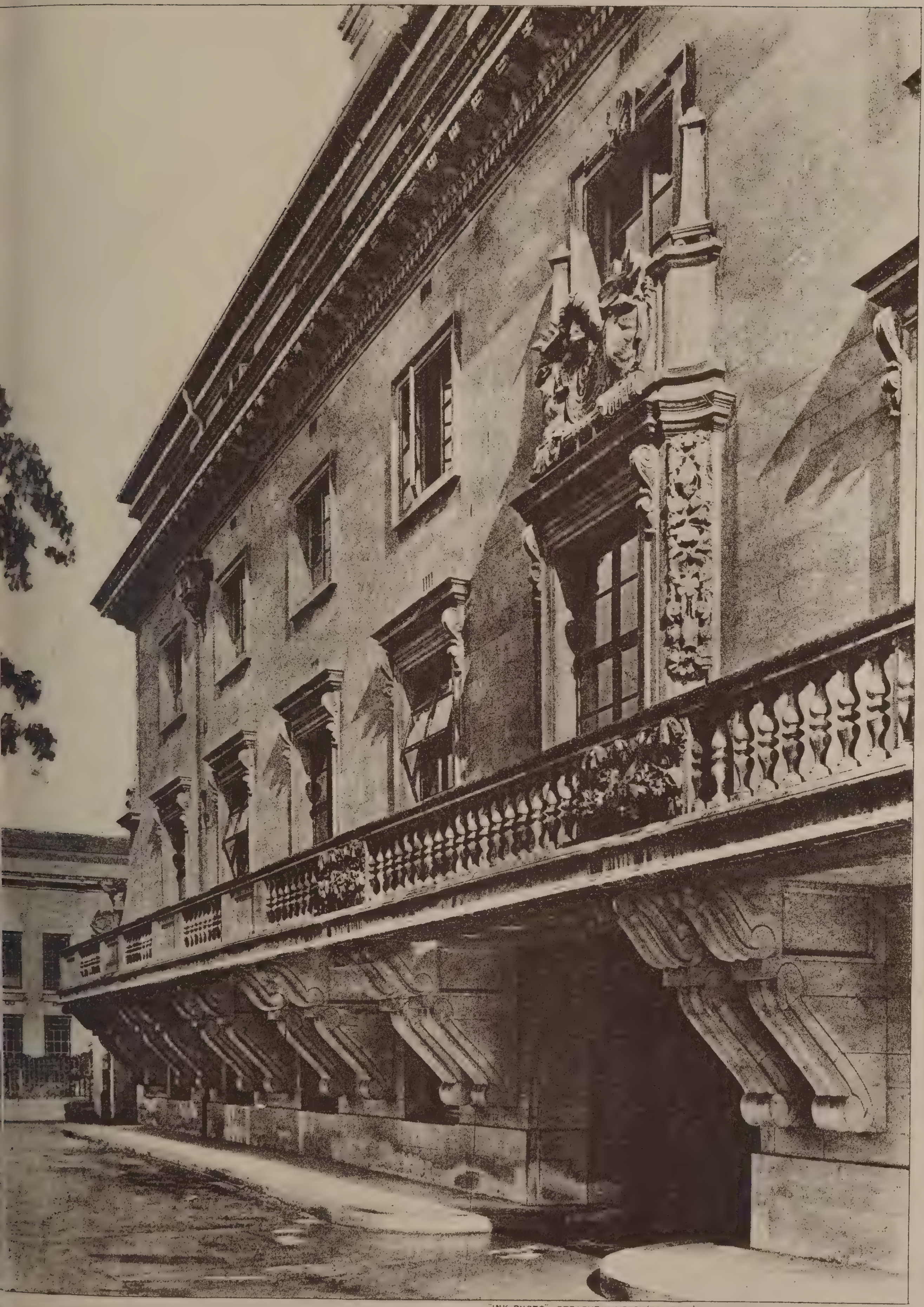
ALWYN BALL, Architect.



VIEW OF TEMPLES ON THE GREAT OUTSIDE STAIRWAY, PORT LYMPNE, NEAR FOLKESTONE.

PHILLIP TILDEN, Architect.

From the Architecture Club Exhibition.



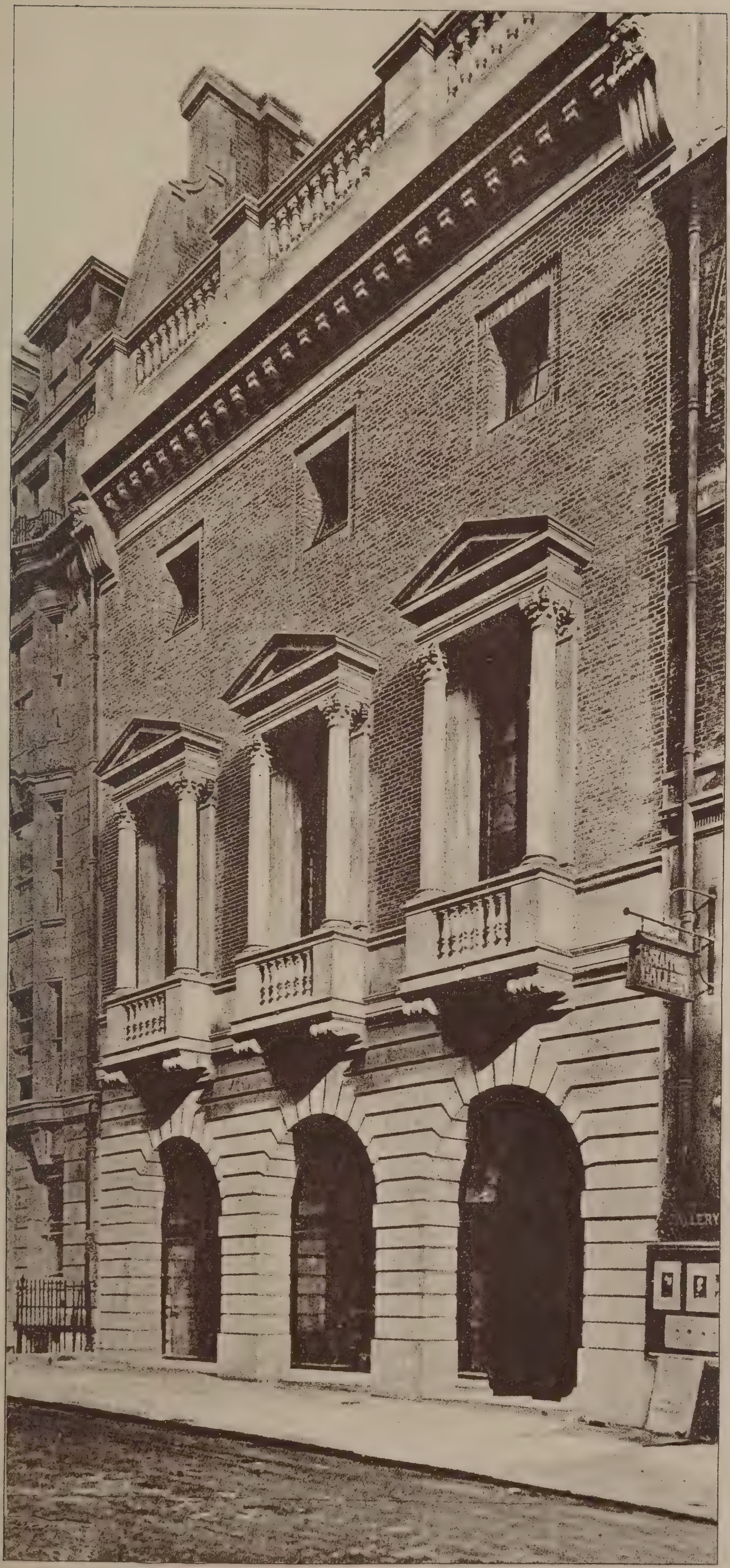
"INK-PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

GLAMORGAN COUNTY HALL, CATHAYS PARK, CARDIFF.

BALCONY ON SOUTH FRONT.

E. VINCENT HARRIS AND T. A. MOODIE, Architects.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



"INK-PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD. 68 & 70, DEAN STREET, LONDON, W.1.

BUSINESS PREMISES, DUKE STREET, W.

E. VINCENT HARRIS, ARCHITECT.

THE LIBRARY
OF THE
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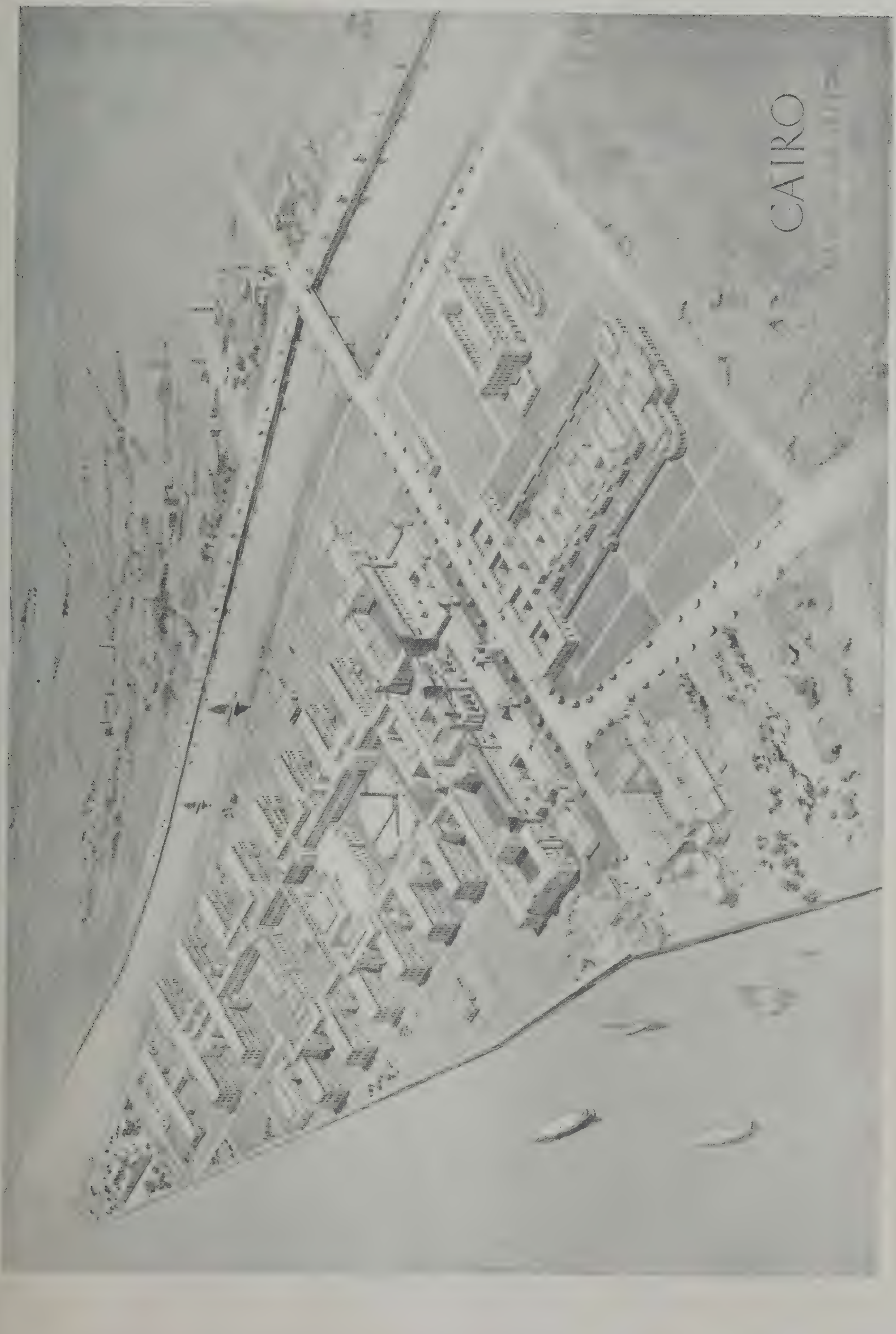
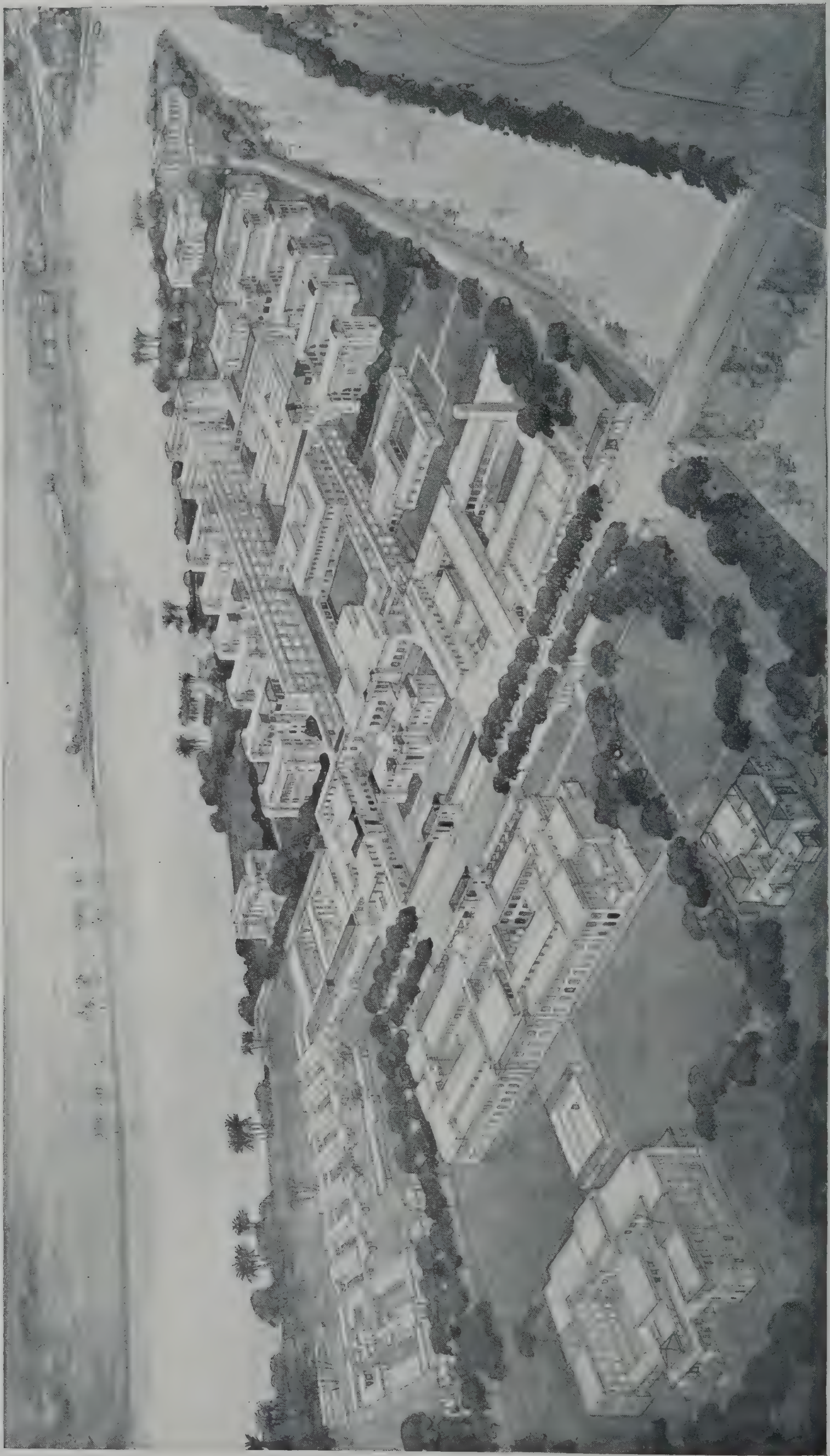


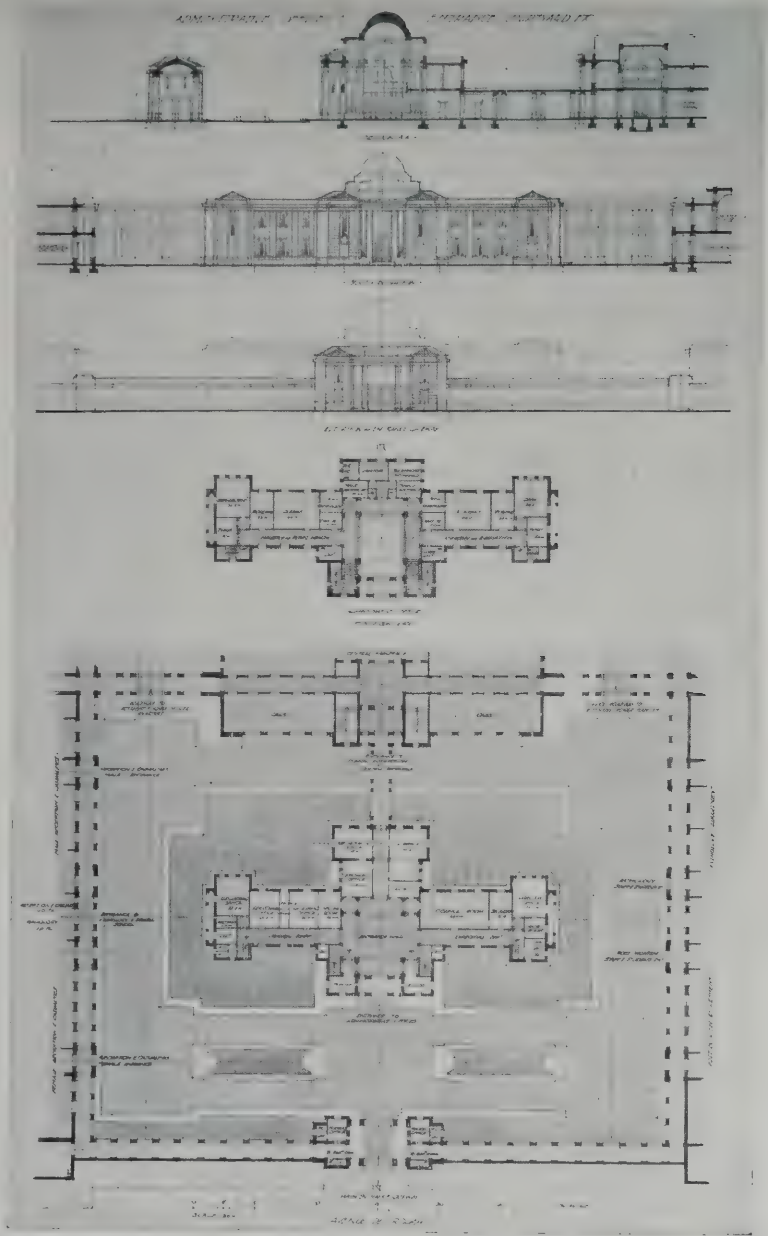
QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO.

W. A. PITE, SON & FAIRWEATHER, ARCHITECTS

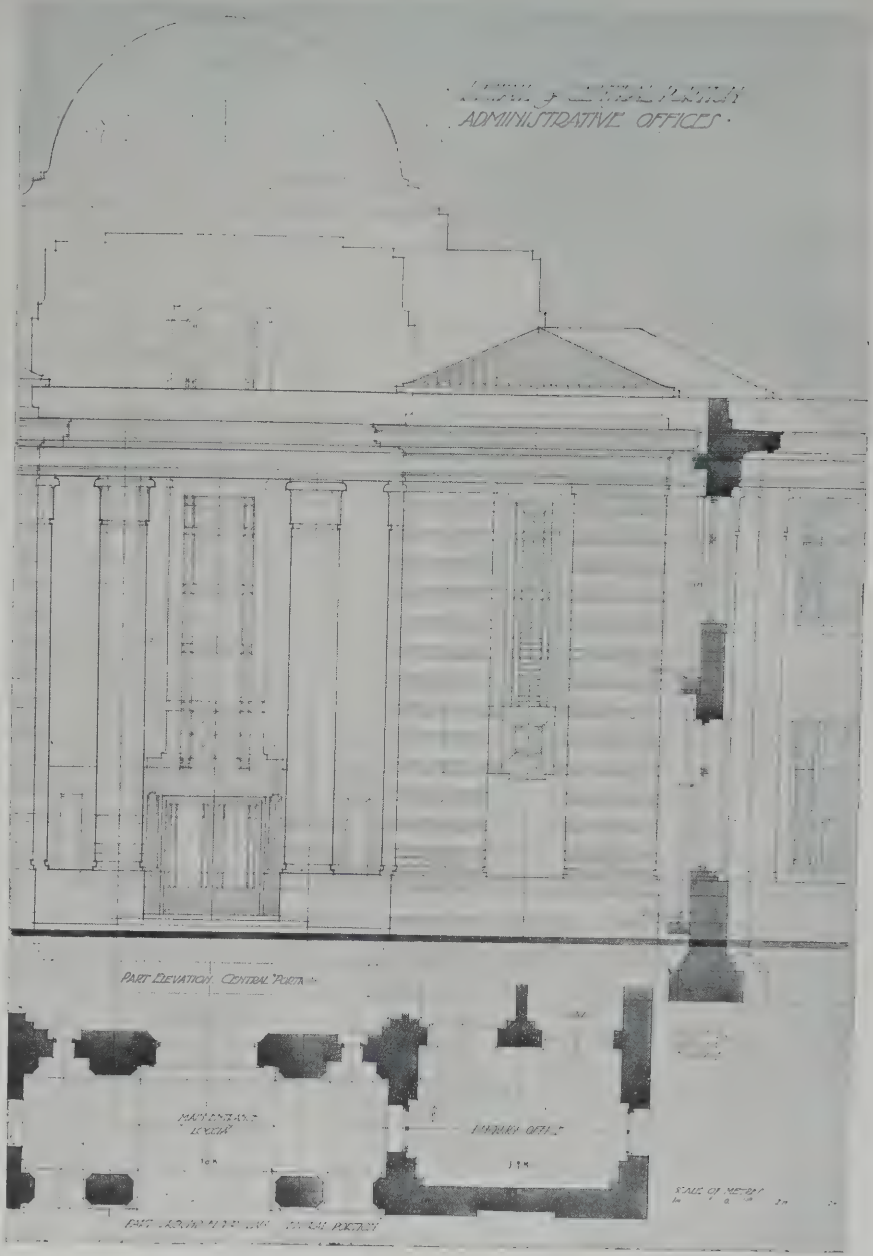


PERSPECTIVE VIEW: QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO

H. V. ASHLEY & WINTON NEWMAN, Architects.



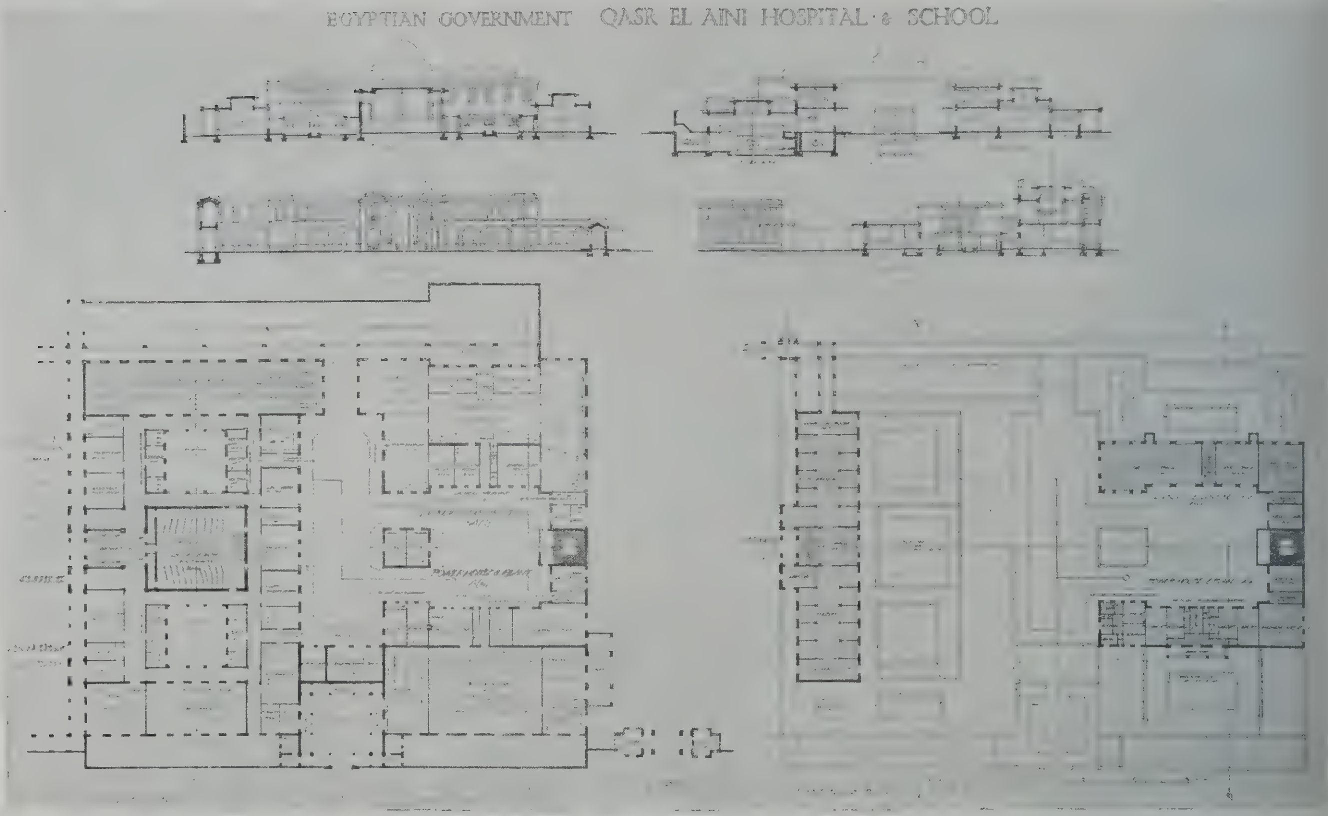
ADMINISTRATIVE OFFICES.



HALF-INCH DETAIL CENTRAL PORTION ADMINISTRATIVE OFFICES.

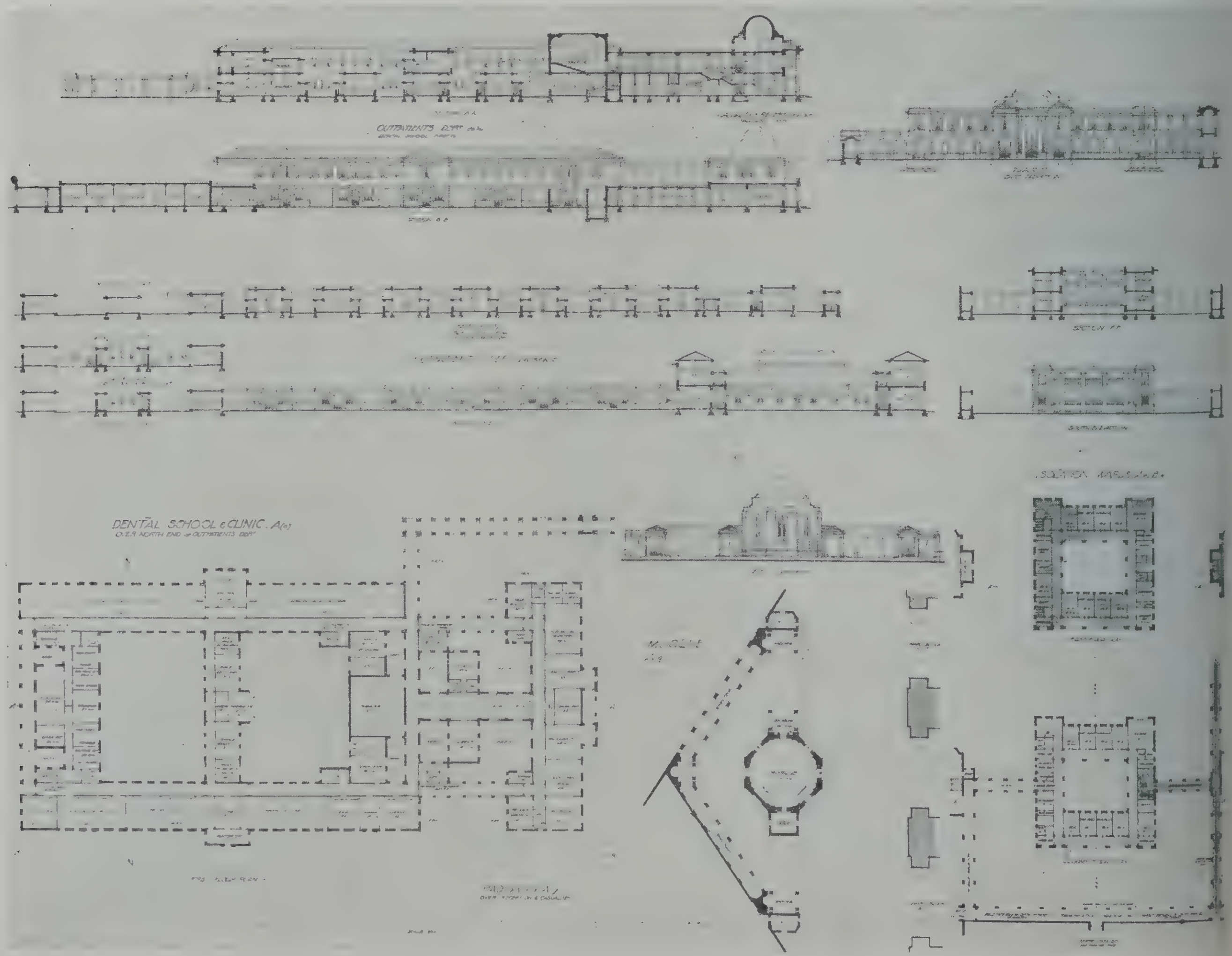
QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO.

H. V. ASHLEY & WINTON NEWMAN, Architects.



PATHOLOGY POSTMORTEM MORTUARY
GROUND FLOOR PLAN.

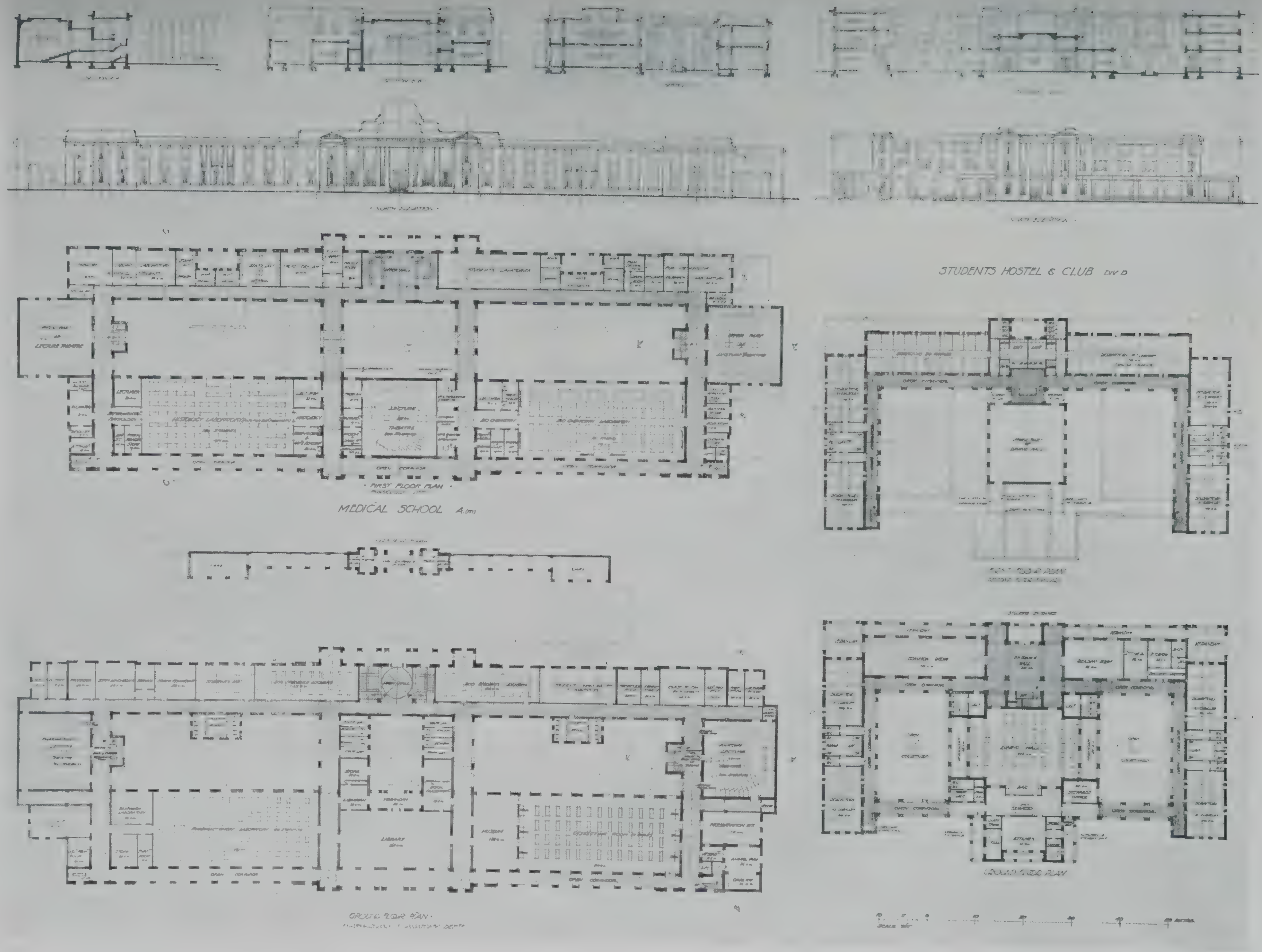
LAUNDRY DISINFECTION AND POWER PLANT
FIRST FLOOR PLAN.



OUT-PATIENTS' DENTAL SCHOOL, MOSQUE AND ISOLATION WARDS.

QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO.

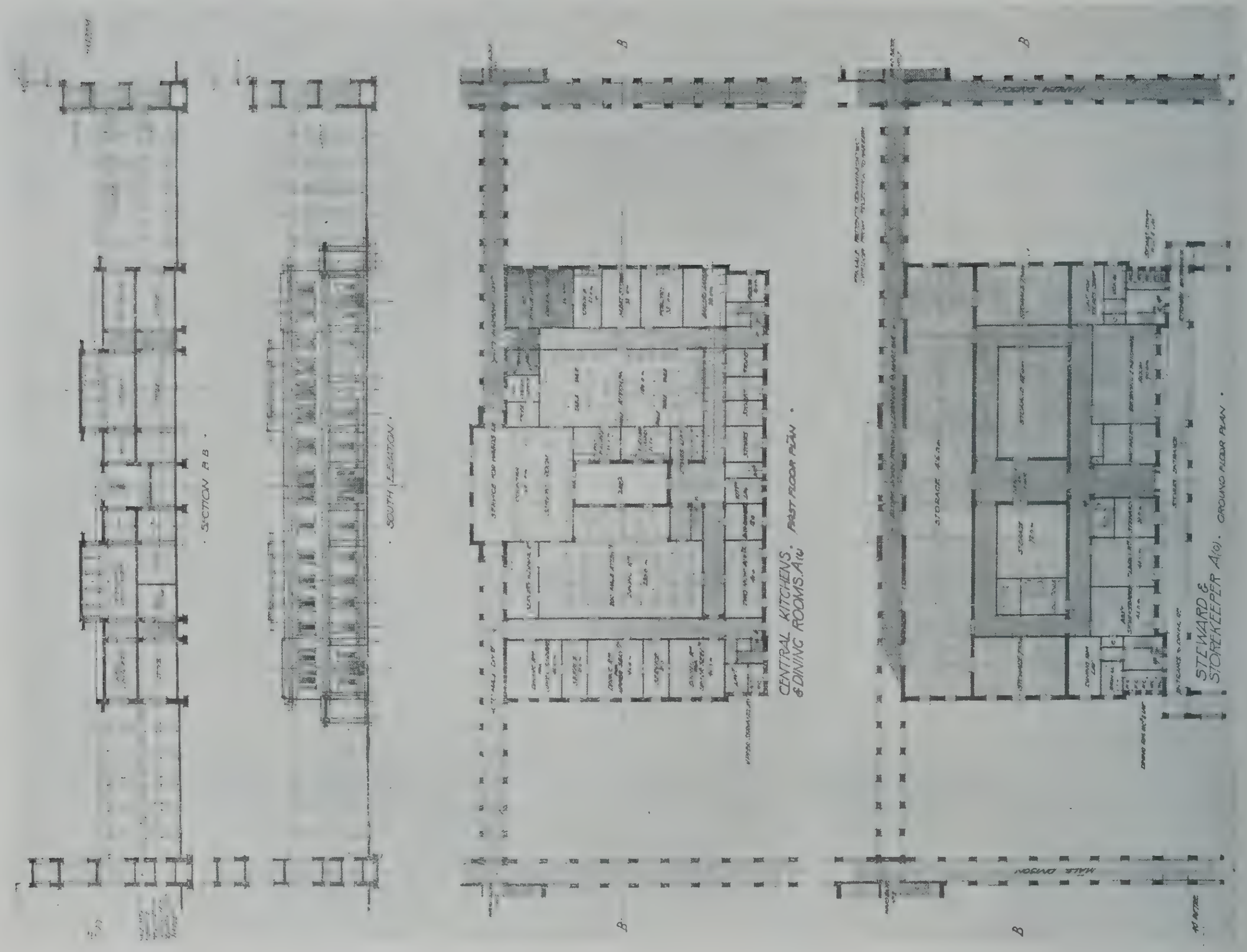
H. V. ASHLEY & WINTON NEWMAN, Architects.



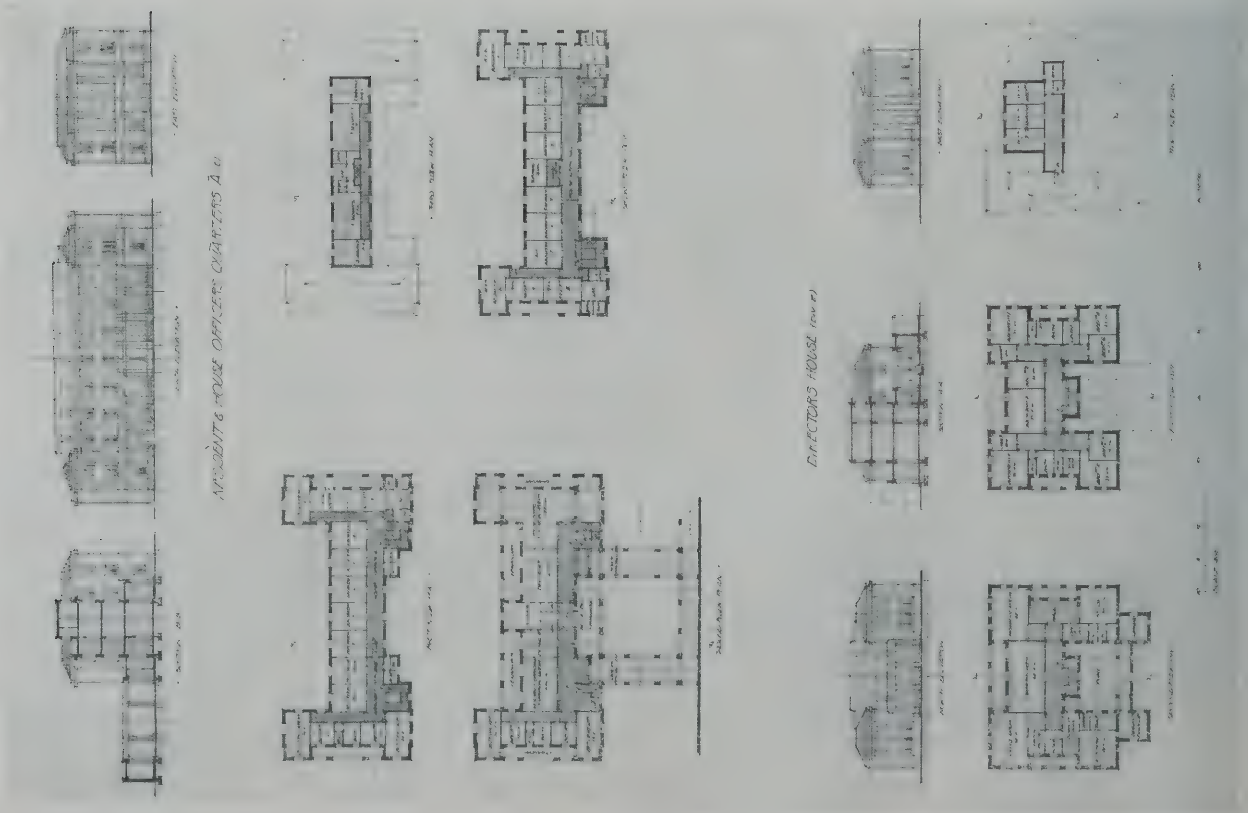
MEDICAL SCHOOL AND STUDENTS' HOSTEL AND CLUB: GROUND AND FIRST FLOOR PLANS.

QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO.

H. V. ASHLEY & WINTON NEWMAN,

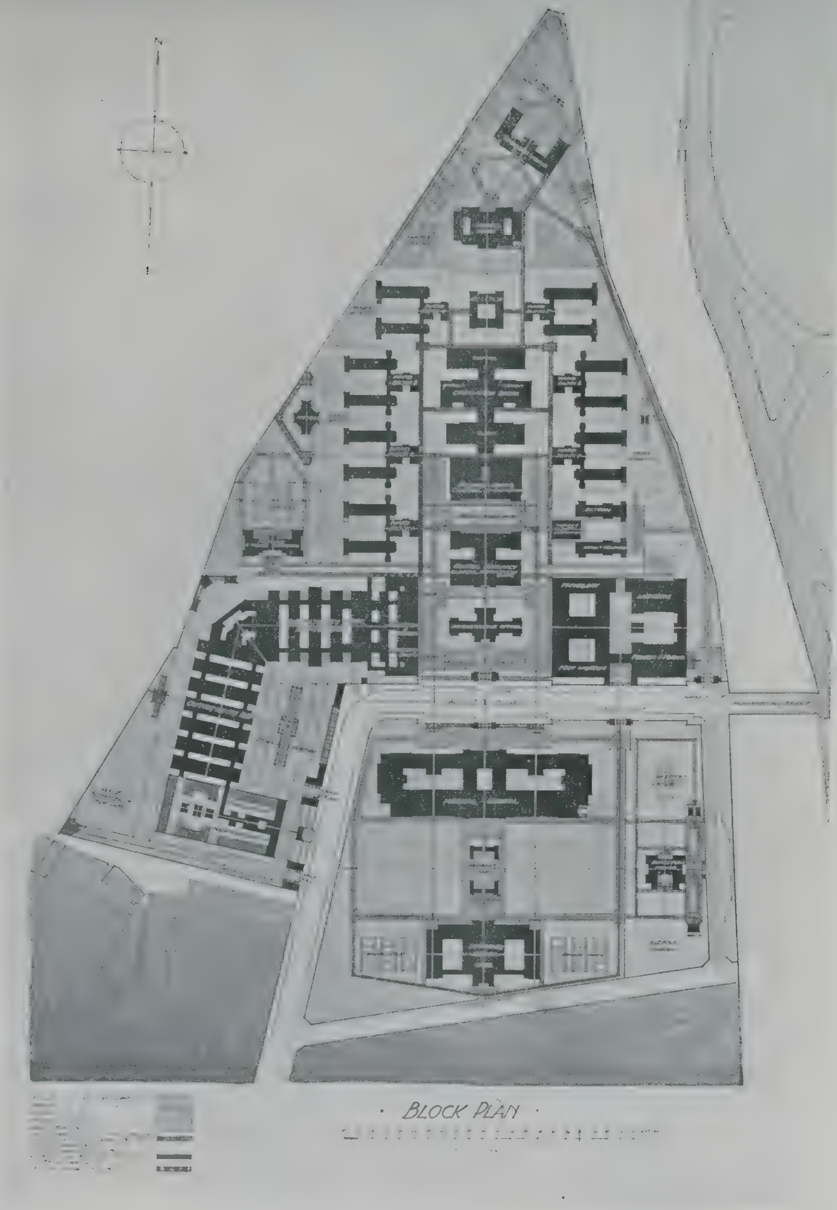

SECTION A.B.
SOUTH ELEVATION
CENTRAL KITCHENS & DINING ROOMS A16. FIRST FLOOR PLAN.
STEWARD & STOREKEEPER A101. GROUND FLOOR PLAN.
STORAGE
B
B
B
B

CENTRAL KITCHENS AND DINING ROOMS. ETC.

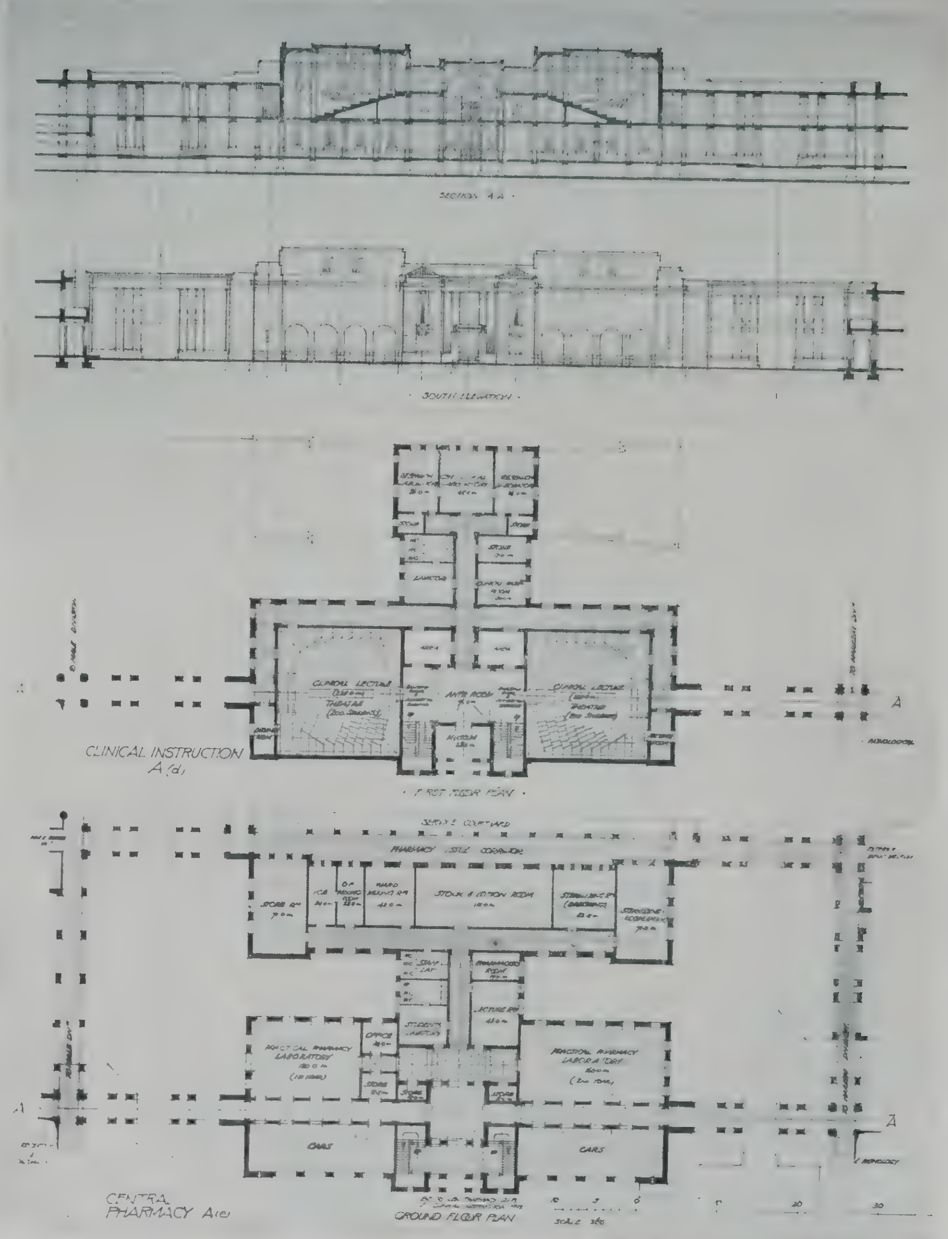


DIRECTOR'S HOUSE AND RESIDENT OFFICERS' QUARTERS.

QASR-EL-AINI HOSPITAL AND SCHOOL CAIRO.



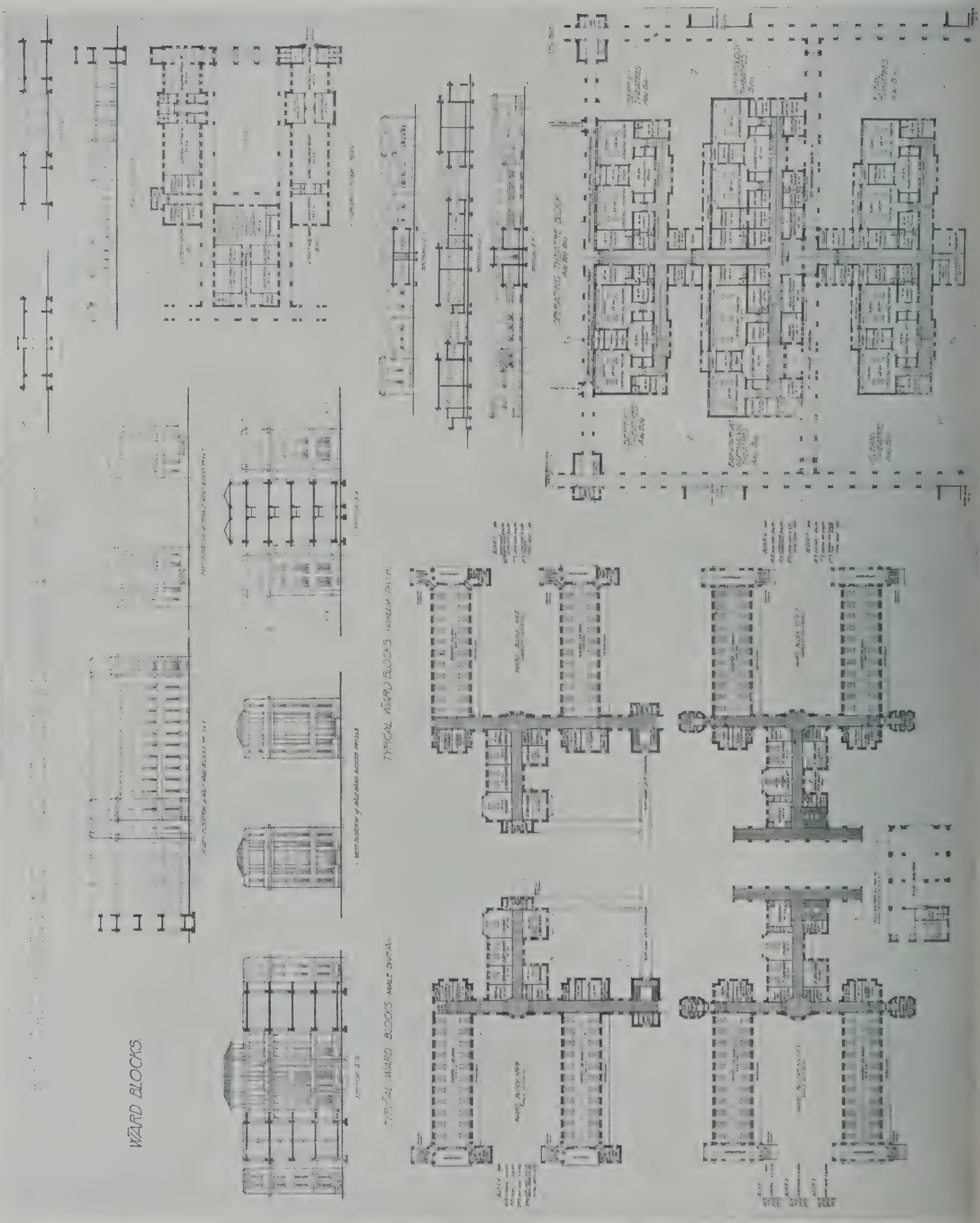
BLOCK PLAN.



CLINICAL INSTRUCTION AND CENTRAL PHARMACY.

QASR-EL-AINI HOSPITAL AND SCHOOL, CAIRO.

H. V. ASHLEY & WINTON NEWMAN, ARCHITECTS


WARD BLOCKS.
TYPICAL WARD BLOCKS MALE DIVN.
TYPICAL WARD BLOCKS WOMEN DIVN.
OPERATING THEATRE BLOCK

Our Illustrations

EXHIBITION OF THE ARCHITECTURE CLUB.

MODELS OF PETER ROBINSON'S NEW PREMISES, OXFORD CIRCUS, W. T. P. & E. S. CLARKSON and H. AUSTEN HALL, Architects.

WOLSELEY HOUSE, PICCADILLY. W. CURTIS GREEN, Architect.

LIVERPOOL CATHEDRAL. G. GILBERT SCOTT, R.A., Architect.

PORT LYMPNE NEAR FOLKESTONE.
PHILLIP TILDEN, Architect.

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INTERIOR VIEW OF "HAMMELS," BOAR'S HILL.
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BUSINESS PREMISES, DUKE STREET, W.
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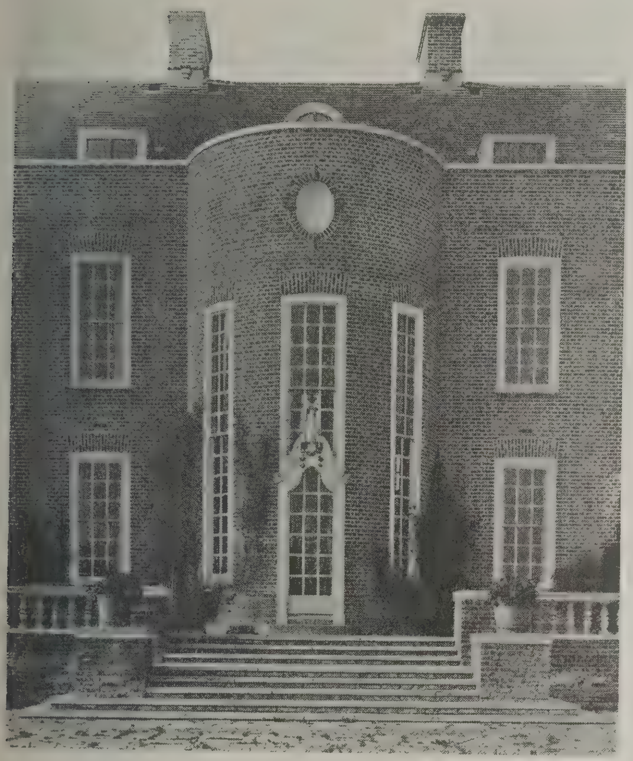


HOUSE IN KENT. By ALWYN BALL, Architect.

We give a number of illustrations of the work shown at the First Exhibition of the Architecture Club, which, both in its scope and quality, is the finest exhibition of current work ever shown in this country, and is worthily displayed in the very fine setting of Grosvenor House, placed at the disposal of the Club by the kindness of the Duke of Westminster.

THE CAIRO HOSPITAL COMPETITION.

The event of the week in architectural circles is undoubtedly the publication of the award in the Cairo Hospital Competition, which has resulted in the success of Messrs. Nicholas and Dixon-Spain, whom we very heartily congratulate. We are unable at present to give more than a very rough block plan of the accepted design, which has been furnished to us by the architects, but we hope in the near future to be able to give full illustrations of what promises to be a very interesting scheme. We suppose there may be some question, as there often is in such cases, of whether the work will be proceeded with, and upon what scale, for unfortunately the profession is too often asked to compete for buildings while the question of carrying them out is still unsettled.

The payment of premiums, however large in amount, does not solve the difficulty, and, while it satisfies the views of the public on the question of equity, does not compensate the architect for his labours or satisfy his hopes.

We also give illustrations of some of the other designs submitted, including the complete scheme of Messrs. Ashley & Newman, and a view of that submitted by Messrs. W. A. Pite, Son & Fairweather.

Notes and Comments.

The Ingenuity of Fraud.

Two men who represented themselves to be surveyors in the employ of the Underground Railways have been trying to impose on residents in the Clapham district. Their method is to call at a house on the pretext that it is a likely site for a new station on the proposed line from Clapham Common to Sutton. They set to work with theodolites and other surveying instruments, and then, after saying that the site is a suitable one, endeavour to extort a fee from the owner.

The railway company state that the location of the stations is not even fixed, and no surveyors have been employed, but when they are they will carry with them letters of authority.

We should be interested to hear whether any confiding persons took the bait; if they did, they deserve to lose their money, as the offers made were evidently corrupt. The scheme is an interesting example of misplaced ingenuity, and the perpetrators will probably find their way to the dock of a criminal court in the near future.

"The 'Daily Mail' Bungalow Book."

"The 'Daily Mail' Bungalow Book" contains a selection of the designs submitted in the recent competition. While among them there are many good plans, they give a prevailing impression of dullness and monotony, the fact probably being that the best plans are the outcome of special requirements or features suggested by a particular site. It is seldom that paper competitions with assumed sites produce outstanding results in excellence. We frequently see the effect of this difficulty operating in students' competitions, which calls to our mind the expression *ex nihilo nihil fit.*

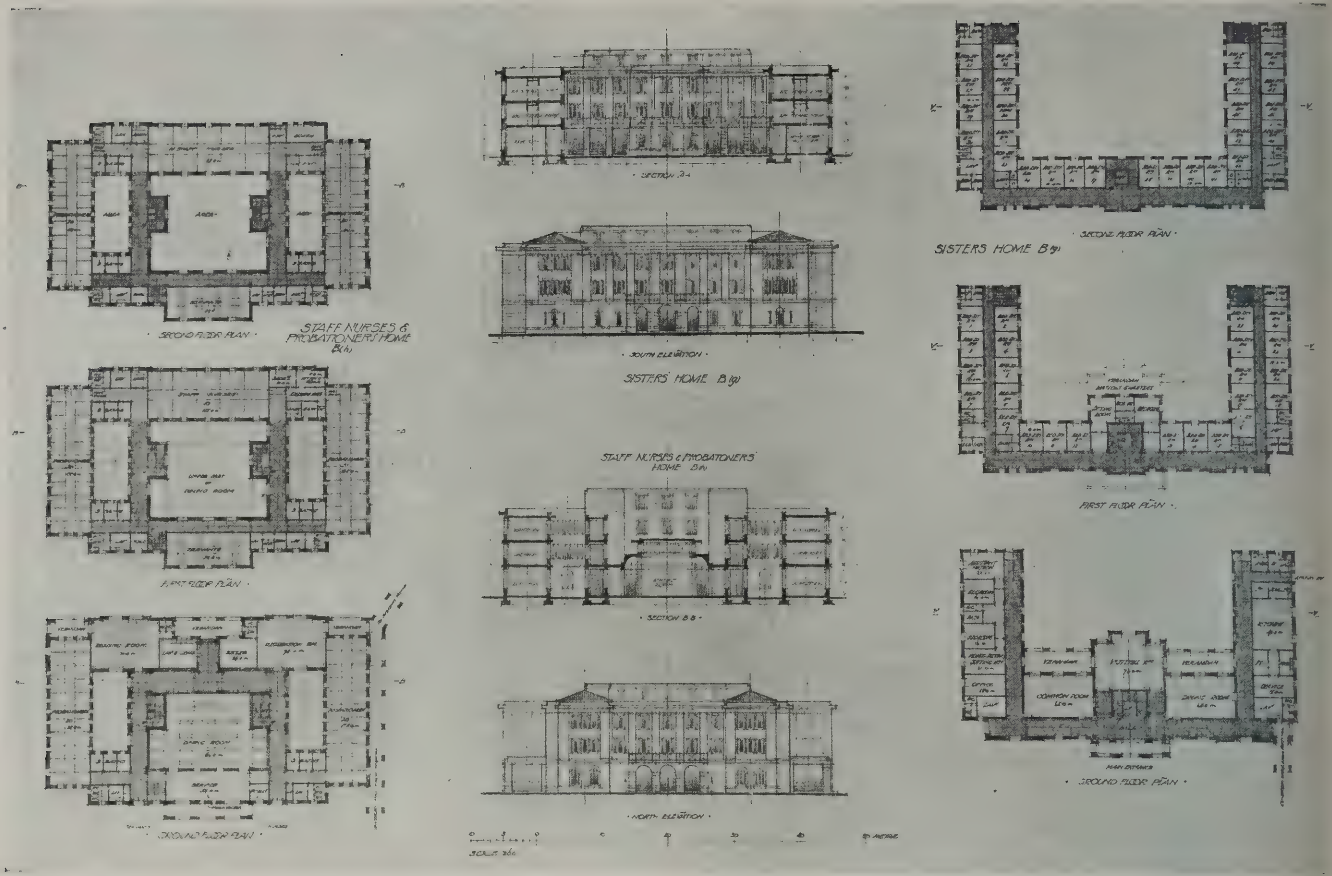
It would to our mind be far better if the average students' competition took the form of setting the problem of an addition to a public building or a public building the necessity for which has arisen. Such problems would have two merits—that of bringing the student into touch with actual conditions and requirements, and that of interesting the public in students' work; while it might in many cases serve to focus attention on the best methods of dealing with public wants. There are many problems in London which might form a basis for competitions for students' prizes, which would then have a living interest which is too often absent from academic essays.

Linoleum as Furniture.

The tenants of the maisonette at Brighton have appealed against the judgment of the County Court Judge who decided that the fact that two rooms were covered with linoleum constituted it as furnished, and therefore relieved the landlord from the provisions of the Rent Restriction Act, which excludes premises let at a rent which includes a bona-fide intention to include in the rent a real charge in respect to board, furniture or attendance. Lord Justice Bankes, in giving judgment, stated that the County Court Judge had decided that there was a bona-fide letting, but had refrained from giving any decision as to whether the use of the linoleum was so slight as to be negligible; the question was, therefore, one of fact, which must go back for the decision of the County Court Judge. Lord Justice Scrutton concurred, but Lord Justice Younger dissented, and the question therefore goes back to the County Court Judge by a majority decision. Whatever this decision is, landlords will probably take ample care that on future occasions what is left in a flat or house will be acknowledged beforehand and agreed upon as being furniture, whether such articles are slight in value or otherwise. This seems to us to be the only rational way of providing against the terms of an unjust measure which should never have been made law.

Architects and Politicians.

We are told that people who live in glass houses should not throw stones, nor is it altogether wise that they should even throw dirt.



CAIRO HOSPITAL COMPETITION. Design by Messrs. Ashley & Newman. Sisters' Home.

That one time politician the Right Hon. Augustine Birrell, who made, we think, a failure when he held a high Irish administrative office, has written a letter in the March issue of "Architecture," in which he says: "Have you ever said anything in your organ about the monstrosity recently erected on Tower Hill by the new London Port Authority? Selfridge would have been ashamed to put up such a building even in Oxford Street." Were it not for the fact that the Right Hon. Augustine Birrell has a reputation for wild remarks, and has abundantly demonstrated his weaknesses in public life, he ought to be prosecuted for so gross and ill-mannered a libel; but, as it is, he will only confirm the estimation in which he is held. We are surprised at our contemporary accepting such a letter for publication, and we are more surprised that in the leaflet sent round to announce the contents of the number they should think it worth while to allude to so gross and foolish a contribution. It is not necessary for us to retaliate by criticism of Mr. Birrell as a politician, for his reputation has long been destroyed, while the Port of London Building will give the lie to such criticism when Mr. Birrell is no longer remembered.

The Wren Ball.

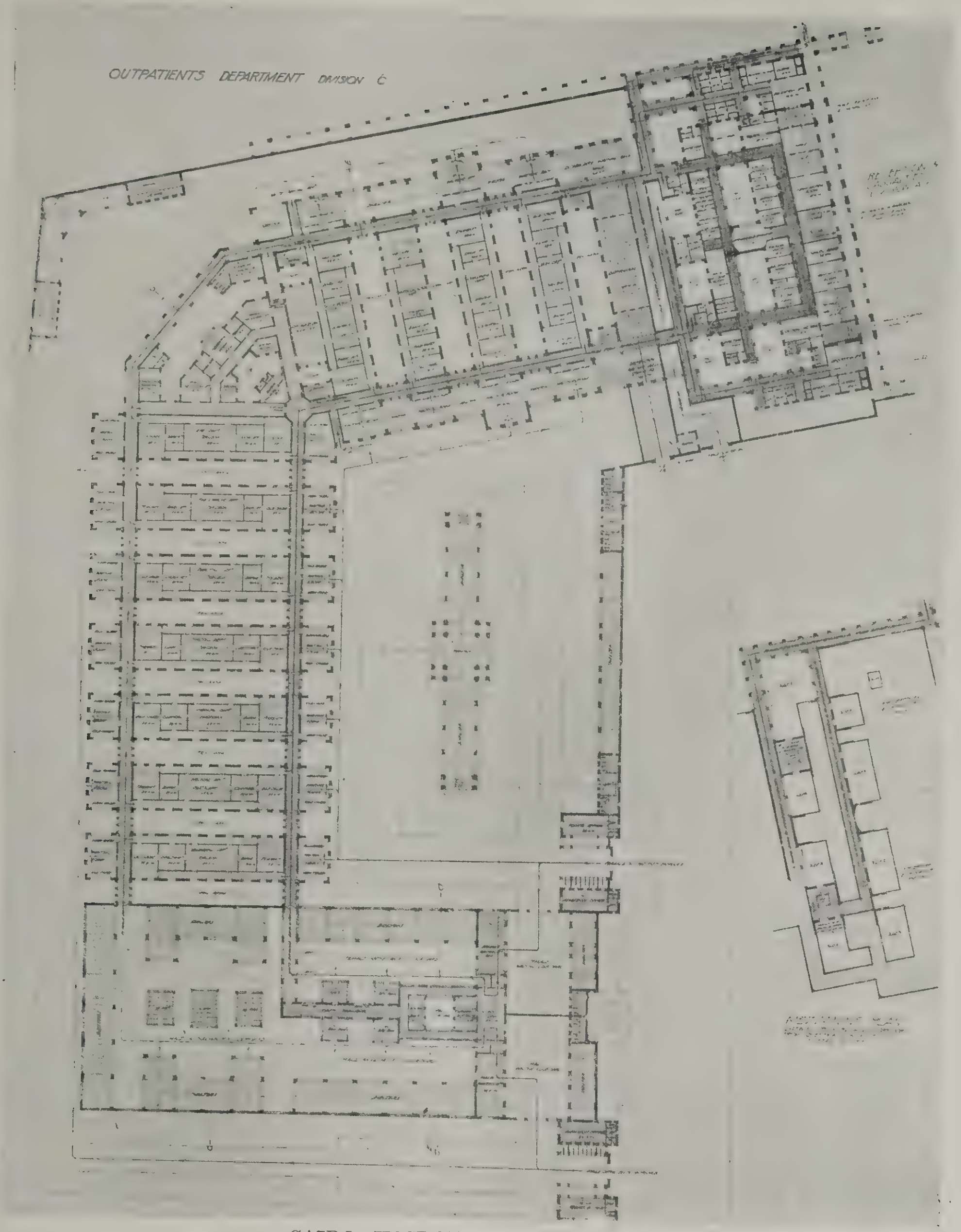
Some there were who suspected an incongruity in the announcement that the architectural students of London were about to honour the Bicentenary of Sir Christopher Wren by holding a Fancy Dress Ball. The usual defence put forward was that Wren, being a kindly soul, would most certainly have approved the idea if his opinion could have been taken. Apart from that supposition, the suggestion was supported by precedent. The annual fair in village or town, which formed so important a feature of mediæval life, was nothing but a jovial observance of the patronal festival. As Wren is the patron saint of (nearly) every good modern English architect, so a carnival must be an appropriate and time-honoured way of celebrating his memory. Anyway, that was the view taken by some three or four hundred people who went to the R.I.B.A. Galleries on Friday last and, with the help of the Clifford Essex Band, made gay that home of learning. Sir Christopher was by no means forgotten. The proceeds will be devoted to the St. Paul's Fabric Fund. A portrait in oils of the great man hung in the principal dancing room gazed benevolently at the startling mixture of time and place represented by the costumes. And, lastly, the programme warned the audience that

> "On XII ſtrokes of the gong at midnight enter
> the CITY FATHERS for ſpecial fitting to receive a
> deputation requeſting the uſe of the Guildhall
> for a Ball, and to expreſs horror
> thereat, followed by the moſt
> timely appearance
> of
> SIR CHRISTOPHER."

The Lord Mayor proved to be the most malignant type of kill-joy, and remained unmoved by a strong deputation of the architectural apprentices of London. This was headed by the "Honorable Society of Pargettors," and included such powerful bodies as "The Stipplers Club," "The Railway Bargeboard Drillers and Borers," "The Sanitary Dustbin and Appliance Manufacturers," "The Junior Fretworkers' Guild," "The Jacobean Furnishing Guild," and "The Bunhill Branch for the Furtherance of Rainwater Goods." Fortunately before the crestfallen deputation had time to withdraw a wrathful Sir Christopher appeared, who in no half-hearted terms espoused the cause of the apprentices, castigated the Lord Mayor, and ordered the Fascisti Stewards to bundle the City Fathers off the scene.

French Furniture under Louis XIV.

We have before us a third volume of Messrs. Heinemann's series of books on French furniture by Roger de Félice, and published at the very low price of 4s. 6d. Like the other volumes of the series, this book is admirably written, and, in the short space of some 140 pages, gives a graphic view of the period and a great deal of detailed description of the furniture of the age. This is illustrated by 85 excellently produced half-tone plates, the whole having a completeness



CAIRO HOSPITAL COMPETITION.
Design by Messrs. Ashley & Newman. Out-Patients' Department.

and finish absent in many greater and more ambitious works. De Félice possesses the rare art of making us feel that the furniture of a period has an intimate relation to history, and that an art can only be fully understood by those who realise its relation to human life. He describes the Louis Quatorze period as being governed by a desire to eliminate cosmopolitan influences and direct art into purely national channels or, as he says, "one continuous effort of the French spirit to eliminate the elements with these importations from abroad that were discordant with the traditional genius of the race, which loved measure, clarity, sober elegance; an effort also to assimilate what was not incompatible with itself. This work of elimination and assimilation was not fully accomplished until the days of the Regency." Such sentences also as the following appeal to both memory and imagination: "Louis XIV. furniture of the costliest type seems ashamed of even the very scanty usefulness it possesses; it does all it can to hide it. In the same way, Claude Perrault's Louvre would blush to display roofs or chimneys or gutters. As much as possible they give themselves the air of blocks, of monolithic pedestals—it is more 'noble.'" So, too, the same Perrault declared: "it is a great beauty in a building to appear as though made of a single stone, the joinings being invisible." There you have it, the detestable habit of lying. But the writer is one whose interest and knowledge of his subject is such that he is able to impartially state both merits and defects—the sole method of criticism which does not defeat its object, because it is essentially fair and balanced. We look forward with great interest to see the fourth book of this series, that which deals with the earlier mediæval styles and the age of Louis XIII., that period of unrest and change out of which was developed what we now consider most typically and characteristically French both in art and literature.

Forthcoming Events.

Saturday, March 17.—The London Society. Visit to the Public Records Office, Chancery Lane, W.C. 2.30 p.m.

Monday, March 19.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Paper by Mr. G. E. S. Streatfield, O.B.E., D.S.O., F.R.I.B.A., entitled "The Hammersmith Housing Scheme." 8 p.m.

Tuesday, March 20.—Society for the Promotion of Roman Studies. Meeting at the Society of Antiquaries, Burlington House, W. Papers by Mr. A. H. Smith, M.A., F.S.A., entitled (*a*) "A New Military Diploma from Egypt," and by Dr. R. E. Mortimer Wheeler, D.Litt., F.S.A., entitled "The Romans in Pembrokeshire," and (*b*) "Two Roman Ivories from Caerleon." 4.30 p.m.

Wednesday, March 21.—Royal Institute of British Architects. Public Lecture at 9 Conduit Street, W., by the Right Hon. Lord Sumner of Ibstone, G.C.B., P.C., entitled "In Public and the Architect." 5 p.m.

—Incorporated Institute of British Decorators. Meeting at Scarboro. Paper by Mr. T. Peters entitled "A Visit to Italy by a Decorator who does some Landscape Painting." 7.30 p.m.

Thursday, March 22.—Edinburgh Architectural Association. Annual General Meeting of Associate Section at 117 George Street. 8 p.m.

Air Raid Damage

The British Fire Prevention Committee have published an interesting Red Book on the Air Raid Damage in London during the War, which is illustrated by many photographic views of the destruction to specific buildings, and by a plan showing approximately where bombs fell as well as plans of Venice and Paris showing the points bombed by Zeppelins and aeroplanes. The object of collecting this information, it is stated, was two-fold: to ascertain what class of building could be relied on to afford the public full or partial protection during raids and, secondly, to collect data so that in post-war operations provision might be made against the possibility of air attack in future wars.

We believe this latter object may be entirely eliminated, because in order to provide such protection as can be obtained by structural means a very large increase of cost would be occasioned, and it is probable that should another great war occur in the future the efficiency of both aeroplanes and airships will have been so greatly increased as well as the power and number of bombs carried by them that the slightly increased strength of buildings will not serve any useful purpose. We believe it to be probable that should such a war occur it would bring about the destruction of European civilisation, already shaken by recent occurrences. Chemistry and invention when applied to ends of destruction will give mankind powers which any nation will shrink from using, seeing that trade and commerce is largely internationalised, and that no one nation can be eliminated without loss to the remainder. The lesson of the war is that those who win and whose who lose are both greatly poorer, and to this fact more than to anything else may bring about more peaceful methods in international relations. The makers of another war will be bandits and assassins within a nation rather than a nation, and for this reason more easily restrained, as they are unlikely to obtain the force and weight attaching to those who are inspired by national ideals. We may find it necessary to be armed *cap à pie* for some years until the old order has finally given place to new, but with the end of period of transition war, and the fear of war, is likely to become a legend of past history.

Those who do not agree with us may well look with apprehension on the future, for it seems certain that no form of building, other than the mass of the Pyramids, could be counted on to withstand the force of the destruction which can be let loose over the world's surface, and no structures can be imagined which would be proof against the incendiary bombs of the future. If we have in our buildings to guard against these the cost of construction will render building impossible unless we burrow like troglodytes under the surface of the globe.

For these reasons we regard the recommendation of a double reinforced concrete roof as well as other safeguards as being impracticable.

We must bear in mind the fact that the Germans seldom risked their machines by flying low, and that a great majority of their bombs fell in open spaces, and that it was the first time that aerial attack had been essayed. The war ended before the Allies had shown how much had been learnt in a brief period, and German towns were spared a proof of progress made in a branch of warfare they had initiated.

The buildings in connection with which specific damage is described include Messrs. Odham's premises in Long Acre, St. Clement's Hostel, Bolsover Street, the General Post Office, the Royal Academy, Somerset House, the German Gymnasium, St. Pancras Station, Demsey Street School, Stepney, Moorgate Hall, Ironmongers' Hall, Fenchurch Street, Chiswell Street, E.C., Savoy Mansions, Strand, Willis' Room, St. James, Warrington Crescent, Maida Vale, Belsize Square, N.W., and Poplar, while the map demonstrates the results of the uncertainty of aiming from a great height, since it shows that the most vital points were in most cases missed by the raiders—an immunity which would probably not occur in a future war.

The booklet will be valued by those who were so keenly interested in the raids, but seems to us to have no other use, while it certainly cannot be held to prove that any effective protection can be provided against the air raids of the future other than those provided by aerial forces of defence. The raids brought home to millions who never went near the battlefields of Europe the reality of war, but they produced in actual effect ludicrously small results which do not give any key or indication to what might happen in the future, when it will be possible to devastate whole districts with fire and to destroy life wholesale by the dissemination of poisonous gas.

"The Architect" Fifty Years Ago.

MARCH 15, 1873.

"THE ARTISTIC 'CYNICS.'"

SIR,—Professor Kerr has used the ancient philosophers for the purpose of an undeniably witty and amusing comparison; but to my mind he has somewhat misapplied his terms.

In matters of art we are all of us, I suppose, Epicureans; that is, we put before us pleasure as our aim. But the pleasure of Epicurus, simple and based on strict utility, and carefully guarded against the excesses of the senses, was as different from pleasure as conceived by his later so-called disciples as the art styled "modern European" is from the art of the Neo-Gothicists, who, disgusted by what they consider the shallow philosophy of the "school" of "elegant fancies," have reverted to the original teachings of an unembodied Epicurus. Epicurus, that much calumniated man, was, as is well known, a man of most simple, even austere life, in fact what Professor Kerr would call a man of "gaunt virtues," and it was his followers who adopted the letter and violated the spirit of his teaching, who called down the eloquent wrath of Cicero upon the system.

The Gothic school do not object to "elegancy" or the "beautiful and joyous," but demand that these graces should be based strictly on truth and utility. If they have their special faults, they are at any rate striving to carry out ideas founded on a sound philosophy that might have been approved by an Epicurus, and are not led away by shallow, short-sighted and ill-digested "definite principles" that under the name of Epicurean have provoked the constant reprobation of humanity.

The true cynics of the age may be found in the members of the Commune, who have lately displayed the natural reaction against modern so-called Epicureanism in its principal seat, Paris; and perhaps Diogenes himself may find his parallel in the good-natured author of the late articles in the "Quarterly."

Your obedient servant,

Langham, Godalming, March 10. RALPH NEVILL.

Thames Valley Regional Planning Scheme.

A joint Town Planning Committee, consisting of representatives of local authorities situated within the Thames Valley, has been set up for the purpose of co-ordinating the development of the several districts which together form this important sector of the Metropolitan area. The Committee have appointed Messrs. Thomas Adams and Longstreth Thompson to prepare an outline scheme of development for the whole region, and as this firm is acting in the same capacity for the West Middlesex Joint Town Planning Committee, it should ensure that, conformably with the preservation of the individuality of each district, a really comprehensive treatment will result.

Blackburn Corporation have decided to undertake an ambitious improvement scheme by the removal of 160 dwellings in a particularly crowded area, and the erection of self-contained flats in the suburbs. The area affected in the town is a badly congested one.

A number of large building projects received the approval of the Glasgow Dean of Guild Court recently. These include the erection of 352 houses in London Road for the Corporation (£100,000); a school in St. James's Road (£25,000); factory extensions for Macfarlane, Lang & Co. (£50,000); and public baths at Whiteinch (£50,000).

Mersey Docks and Harbour Board, at their last meeting formally approved the recommendation of the Works Committee to erect, in lieu of the shed originally authorised, a ferro-concrete three-storey shed on the north quay of the Gladstone (No. 2) Dock, at a cost of £317,640, exclusive of crane equipment. The new shed will be 100 feet wide and 18 feet from the quay margin.

"Air Raid Damage in London. Being a Record of the Effect of Aircraft Attack on Certain Public and Private Buildings." Prepared by Major E. C. P. Monson and Ellis Marsland. Published at the Offices of the British Fire Prevention Committee, 8, Waterloo Place, S.W. 5s. net.

A Possible Housing Policy.

By H. Bryant Newbold,

Editorial Secretary, National Federation of Building Trades Employers.

The Government having intimated that they are giving consideration, if not to the continuance of the policy of the late Government, yet to some form of a Housing Scheme involving State aid, a short review of the chief points of the more valuable suggestions may prove of interest.

As is usual in such cases the idealist is to the fore, and, as usual, he overlooks the cold facts of reality. The rural mind, perhaps naturally, hastens to tell of what has been found to meet the case in its own limited surroundings, overlooking the fact that a few cottages do not make a National Housing Scheme. The pleasant, but impossible, proposal that the wage-earning classes should occupy their evenings during winter in building, with their own hands, houses for occupation next summer, during which they would lay out the gardens, is delightful. So delightfully Arcadian is the dream that it is almost unkind to point out that the average wage-earner is neither blessed with much leisure nor gifted with any marked technical aptitude. To saw and to hammer no doubt seem, to the uninitiated, simple accomplishments; yet a number of books of instruction upon these subjects would seem to suggest that some training is necessary to perform them aright. But even if it be taken for granted that the average man, technically untrained, could undertake with success the carpentry entailed in building a house, can the same be said of bricklaying, plastering, plumbing and tiling, all of which are necessary operations in building even the smallest cottage? And of these, bricklaying, which might be looked upon as the easiest, is not, as some would have us think, merely a matter of placing bricks in simple lines. On the contrary, many works upon building construction give many a thousand words of advice on this somewhat intricate operation. So, with all the various trades involved, their proper execution demands skilled labour, and any scheme which overlooks the need for the skilled artisan is foredoomed to failure.

Of the more serious-minded and worthy of consideration, the "Webster" Scheme has two points which contribute towards a solution of the problem; the first being to abolish the old system of assessment and compounding, and to substitute the following system: that the public authorities should issue rent cards to the landlord, ruled in three columns, showing rent, rates and total weekly payments respectively. By this system the tenant would know what he is contributing towards the rates and what he is paying in rent, and the landlord would know at a glance the percentage of interest he is getting on each property.

The second point put forward in the "Webster" Scheme, as an inducement to the investor and a means of getting the houses so badly wanted *without Government subsidies*, is the exemption from streetage charges, these being taken over in future by the local authorities, whilst in the past they have always acted as a drag upon the investor.

"A Speculative Builder's Opinion," known as the Brant Scheme, contains the following suggestions: (1) That new houses should be free of rates for ten years; (2) that housing banks or building societies should lend to the purchaser up to five-sixths of the value on the Government indemnifying them against loss; (3) that existing building by-laws should be revised and simplified. And of these, perhaps, the first is the most far-reaching.

For it may be taken for granted that so long as purchasers are to be found builders will build, and the main thing which has stood in the way of the investor in the immediate past has been that such investment was not profitable. Consequently builders have not built.

Whilst agreeing with this basic principle that to ensure the success of any housing policy the investor must see a profit, that scheme put forward by the National Federation of House Builders involves a Government subsidy. Government subsidies involve State control, the result of which has been proved beyond any possibility of argument to lead to an inevitable end—failure.

A scheme as recommended by the National Federation of Building Trades' Employers, whilst requiring no State aid whatever, amongst other matters, advises that the speculative builder should be encouraged to meet the demand by freeing houses built within the next two years (and not exceeding a certain value) from rates and taxes for a period of ten years or so.

The main feature of such a proposal is that whilst encouraging the property investor, who is the key to the situation, the revival of the house building industry would be assured without burden to anyone and without interference with the proper province of those best fitted by training and experience to build cheap houses. And these are, of course, the speculative builders. Possibly the objection might be raised to such a plan that it would entail a considerable loss in rates; but the answer to this is, of course, that the land is no more productive of those rates whilst standing unoccupied with houses.

The repeal of the Rent Restriction Act is vital, for no housing policy, however excellent, could possibly be successful under any conditions, socialistic or not, which tie up the investors' capital.

In conclusion, it may be said that this problem is not so difficult of solution as might be supposed. Nor would it have ever grown to be surrounded by such mystery had not the late Government involved it and themselves in such socialistic intricacies.

In the past the builder has always adequately met the country's need in buildings. Can anyone advance any real reason why they should not continue to do so now and in the future? Let each of us get back to our proper calling, from which the war disturbed us, and there will be no need for the fussy intervention of the no doubt well-meaning amateur.

The Education of the Architect in France.

In the course of a paper on "Modern French Architecture," read by Mr. Fernand Billerey before the Cambridge University Architectural Society on February 28, the following interesting references were made to the vexed question of "Pupilage or Schools?"

The question of the education of the architect appears to be now such an important one in Great Britain that I feel it may be of interest to consider the precise character of that education as it is practised in France. A great deal has been heard lately over here of such expressions as "ateliers," "en loge," "esquisses," "rendus," but I am not so sure that, apart from those additions to the student's vocabulary the British method of forming young architects has come much nearer to the French one. The British method has been, to my knowledge, undergoing considerable change during the last fifteen or twenty years, and one can hear everywhere expressions of satisfaction that the old system of "articles" or "pupillage" has been slowly but surely superseded and replaced by that of the schools of architecture. It is probably too early to judge by the results whether this change is for the good. If, however, one compares this new state of affairs with the French method, which is called the "atelier" system, it must not be forgotten that the French system is originally an improved, an organised, pupillage system. Indeed, the members of an atelier are the pupils of one practising architect, and the atelier used to be—up to about the middle of the nineteenth century—nothing but the drawing office of the master. The art of architecture is taught by an architect with a practice to young men articled to him. The Beaux-Arts School carefully refrains from interference with that tuition, but it offers means to these different ateliers or groups of students under an architect-master to compare notes by competitions—it completes their education (but not their tuition in art, note) and their general and scientific knowledge by courses in mathematics, physics, chemistry, the theory of building construction, history, literature, etc.

That is, to my mind, the main characteristic of the French Beaux-Arts system. It does *not* and will not attempt to teach the art of architecture. This suggests the most important question—can art be taught?—taught in a school by professional teachers?—or must it only be "practised" under the guidance of one who has already acquired knowledge and experience?

I am not proposing to answer this all-important question. I am only pointing out that the French reply to it in adopting a clearly defined policy of artistic education is "No! Art (whether of architecture or of painting or of sculpture) is not to be taught." I have been told by some people here "The French solution suits the French temperament. Another one, quite different, is required for the British." Whether this is so—whether the question is one of local temperament or a more general one of art—I must leave to others to decide.

Mark you, when I say "teaching the art of architecture" I only mean that part of the education of the architect which is art (the art of designing). All the other knowledge that one would like the perfect architect to possess (and an architect should be not only an artist but also a professional man, a man of science and an intellectual man all round) all the rest of his knowledge *can* and *should* be taught to him, and the more of that the better.

I must point out that if I have indicated the principles which form the basis of the Beaux-Arts system, in practice things are a little different. I said "*originally* the ateliers used to be nothing but the drawing office of the master," but of late years they have become something else. Masters have separated their drawing office and their ateliers. There probably came too many students, and that great number was probably not doing any more good to the master's practice than to the students themselves.

Teaching then has been kept apart from practice, and therein lies a certain amount of danger—designing being kept too distinct from building, too much importance given to presentation, to a florid and brilliant type of detail inspired neither by the requirements of the one who builds, nor by the aims of the craftsmen, nor by the nature of the materials employed.

Those responsible for the welfare of the French School are well aware of the danger, and I think I can say that were it not for the war, which has stopped so many things during the last ten years, some remedy would have been attempted. One natural remedy, however, is found in this fact—that the Beaux-Arts tuition spreads over a great number of years and is elastic enough to leave the student all the necessary time to engage in practice, either as a draughtsman or even on work of his own. This slow but thorough method, which enables young architects to remain in contact with all the requirements and difficulties of practice, whilst *simultaneously* their minds are not allowed to lose sight of the higher problems of design, which they have an opportunity of discussing in the ateliers, and practise under the guidance of their elders or of the master, has given the most brilliant results, not only in France but also in America, where I should say a majority of the successful architects have spent many years in the French ateliers, and where a system of education is developing on similar lines and, in many cases, with the assistance of the French.

Sheffield, South Yorkshire and District Society of Architects and Surveyors.

A lecture entitled "Italian Architecture in England" was given by Major H. C. Corlette, O.B.E., on March 8.

The lecturer began by saying that it was possible to trace in history the growth of English tradition in architecture through nearly a thousand years, and that it was a continuous and living evolution of both structural forms and decorative character. The idea behind it is full of the same Gothic spirit, and it is an expression of the wild and thriving vigorous adventure of an enterprising Gothic mind, and in archæology we can see and examine the evidence of this growth in many directions over all this long period of years.

The lecturer showed how Greek architecture suffered no change such as the architecture of England, France and Germany suffered by the introduction of the Renaissance, and emphasised the fact that in Italy, by reason of the national history of their art, the period of Renaissance was called so with some truth, but that in other countries, including England, nothing of this sort could be reborn, for it had never been brought to birth. In England English tradition prevailed until the middle of the seventeenth century, but in less than a century from the death of Elizabeth foreign influences had conquered our national powers and almost killed our native tradition. Italian architecture had become the vogue. The architecture of an English tradition is a Gothic art and was the product of a Gothic mind. It was not an architecture of terms of decoration, but an architecture of the practical commonsense effort of masters in architecture, master-masons, master-carpenters, and master-craftsmen generally.

Many English buildings are now classed as belonging to what some call the English Renaissance, but it might with more architectural historical truth be said that, except for some Italian and a few Flemish or German evidences in decoration, all English buildings up to the end of the sixteenth and very many built in the seventeenth century were the direct result of a continuous and developing and still English tradition.

Major Corlette touched on the mistaken use of the word "Classic," and went on to say that if we use the word "Classic" at all as a means of description or of classification it must be in a sense which implies high quality and unquestionable merit, and that we must include in its application not only the productions of Greece and Rome, but those works of supreme merit in literature and art of all nations; and that all Gothic art, if of unquestioned excellence, is as truly classical as any that Greece or Rome ever produced.

Speaking of the art of Greece and Rome, he said that it would be more than foolish to decry the many and obvious beauties in the forms and principles of Greek art; but, whilst not withholding admiration for their beauties, they wanted to be looked at not as devices to be perpetrated with a tiresome and too frequent iteration, but as steps in the stages of a forward move. He would let them be to us as they were to the Gothic invaders of old Rome, Eastern or Western, and make them serve our own ideas and ideals, using modern needs, modern construction, and modern materials and modern plans, and compel them to meet the conditions of climate in whatever part of the Empire we have to work. Let us build on them as our foundations, as our Gothic forefathers did with such sublime results.

These buildings of an even then remote past age must in many ways have been an influence in shaping ideas in the minds of the Gothic invaders, and we cannot suppose that they were untouched by them when they invaded the Empire East and West in every part.

They had lived and worked in and around Constantinople and Rome for some seven centuries before what we know as the Gothic Revival, the first revival in architecture, began. They had ransacked the cities of Greece, and wandered over and looted all Asia Minor and Egypt before this revival began. As a practical as well as an imaginative people, we can suppose they did not miss the discovery of some ideas that were useful in that amazing world that was then all Roman, and from Greece and Rome they learnt at least to think of architecture, and the grandeur, glory and power associated in these buildings with a refined skill must have influenced them unknown to themselves.

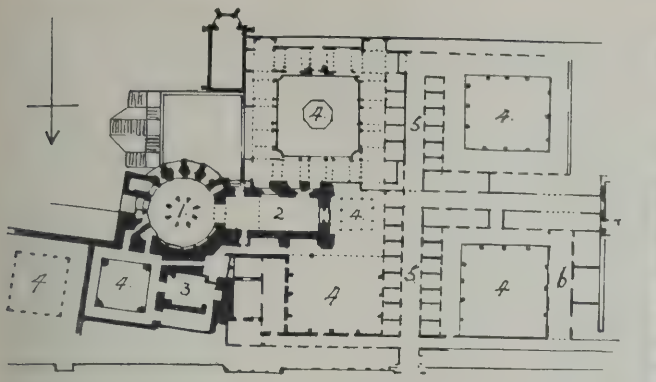
Finally, the lecturer discussed the unceasing use of the Orders of Architecture in building, and emphasised the fact that while the Greeks used the Orders legitimately where they represented a structural need, the Romans often used them for decorative effect only—as, for instance, in their triumphal arches; and when we look at the late Italian revival of Roman forms and decorative ideas in connection with building, we find the Order is more and more a mere device for decorating the actual structure, and if that structure was to be stripped of these unessential additions, it will then stand forth as something to be considered on its merits as it is, and then we can look for those essentials which are able without decoration to make good buildings appear as fine architecture; and these are essentially of the plan and of the material physical structure—the main form and outline, the relation of mass to mass, void to unpierced surfaces, an emphasis of light in relation to the depths of shade.

In St. Sophia, St. Mark's, St. Peter's, Les Invalides, St. Paul's and all Wren's towers, as in his Hampton Court and Greenwich work, it is the plan, and the structural devices used in its realisation as a thing of sound building, on which the form relies, and out of which it grows as a natural, an almost inevitable consequence. All Gothic work seems to possess this character of an architectural growth in a living form of building. The houses and castles in the English examples all through the Tudor and Elizabethan periods are particularly an inexhaustible story of how to build sensibly by that art of common practical sense in the arrangement of a plan, and the right use of materials, a sound, useful building which is fine architecture and does not rely on applied decoration for its merit.

Architecture, the fine art, must grow out of good planning and true building if it is to possess all the refined attractiveness that it can and should have; every kind of skill that human craftsmanship can add to these first sound needs should be used and supply an increase of beauty, a variety, and a new charm of graceful character to this built form. That form in itself must first be good with a characteristic beauty and power of its own; and if it has not these qualities, no added decoration of any kind can ever supply the deficiency.

The lecture was illustrated by many lantern slides, and a vote of thanks to the lecturer was proposed by Mr. W. J. Hale, and seconded by Mr. H. L. Paterson.

Professor W. M. Flinders Petrie, F.R.S., is to repeat his lecture on "Royal Burials in Egypt" at the Kingsway Hall on Saturday, March 24, at 3 p.m. The proceeds will be devoted to the British School of Archæology in Egypt.



TEMPLARS CHURCH & CONVENT, THOMAR.

1. TEMPLARS' CHURCH, NOW CHANCEL.
2. NAVE, WITH CHAPTER HOUSE OVER.
3. SACRISTY.
4. CLOISTERS.
5. DORMITORIES.
6. NOVITIATES.

PRAÇA DA REPUBLICA AND TEMPLARS' CASTLE, THOMAR.

Notes from Portugal.

By G. A. T. Middleton.

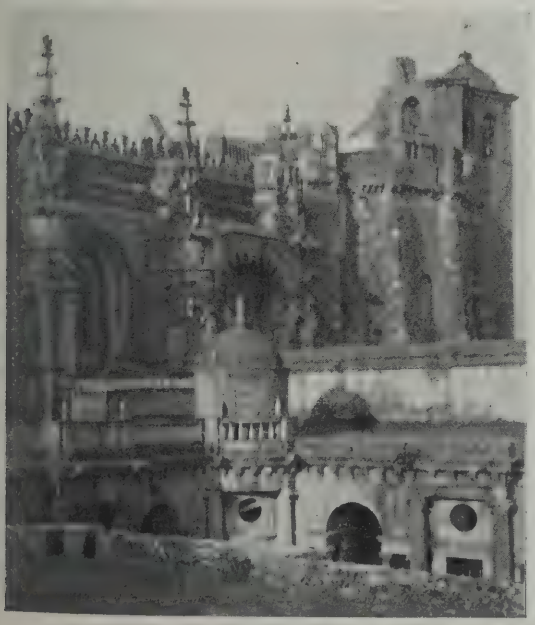
No. XIV.—Thomar.

In mediæval monastic establishments all over Europe the cloisters are found under the shelter of a great church. One cloister court is the rule. At Westminster there are two, but the "Little Cloister" formed no part of the original structure; it replaced the Infirmary when that was burnt down, and as it exists to-day goes no further back than the days of Wren. In Portugal, as we have seen, a second storey was frequently added in the days of the Renaissance, while there are two cloister courts at Batalha.

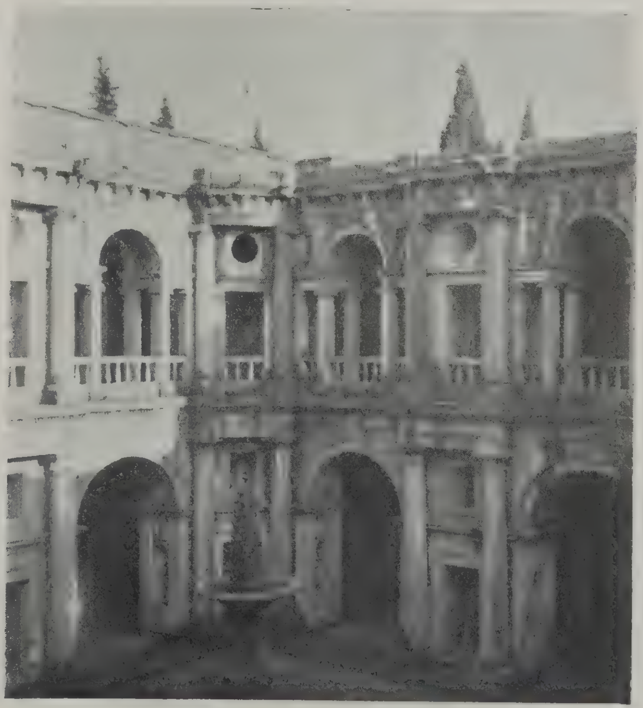
At the Convent of Christ at Thomar there are no less than eight, of which seven are shown on the accompanying plan, and several of these are in two storeys; and instead of nestling beneath a large church, they are grouped around a small one, whose origin was only monastic in a limited sense. It was the church of a Templars' castle, the ruined walls of which enclose the whole flat top of a considerable hill dominating the town below and a considerable stretch of broken country round it. The Convent, large as it is, occupies only an inconsiderable portion of the total area.

The Order of Knights Templars was founded at Thomar, and what is now the octagonal chancel of the church was probably the earliest of the "Temple Churches." Not much of the original work remains, except the massive walls, with indications here and there of "Norman" work. Within it there has been erected an octagonal stone tabernacle to enclose the altar, probably during the Manoëlian period, when the nave was added. It is of nondescript character, with pointed arches, Mooresque capitals and colouring, and late Gothic foliage carving, and very beautiful in the gloom, as seen from the well-lighted nave, or from the gallery added at the west end thereof.

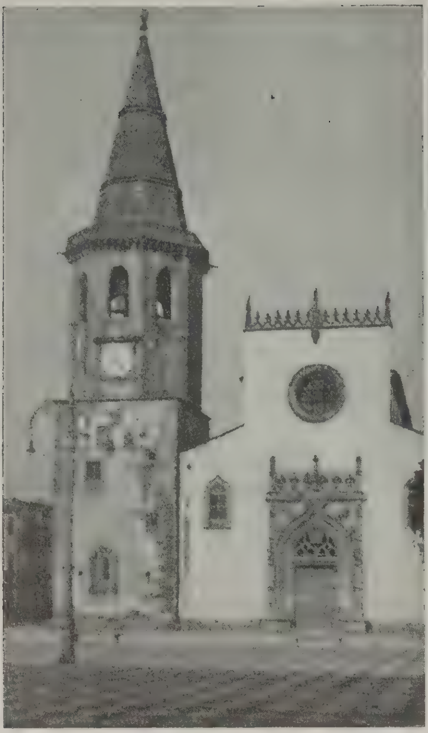
This gallery, as the photograph shows, has a Renaissance railing, with richly ornamented newels and well-designed turned ballusters; but the nave itself is of the most exuberant Manoëlian type, and the strong chancel arch may, or may not, be of the same date, with its now vaguely discernible painted decorations on the soffit. Possibly, however, this may all be earlier, for, except for the carved decoration of the roll moulding, which may well have been cut centuries after the arch was erected, it is simple and dignified—



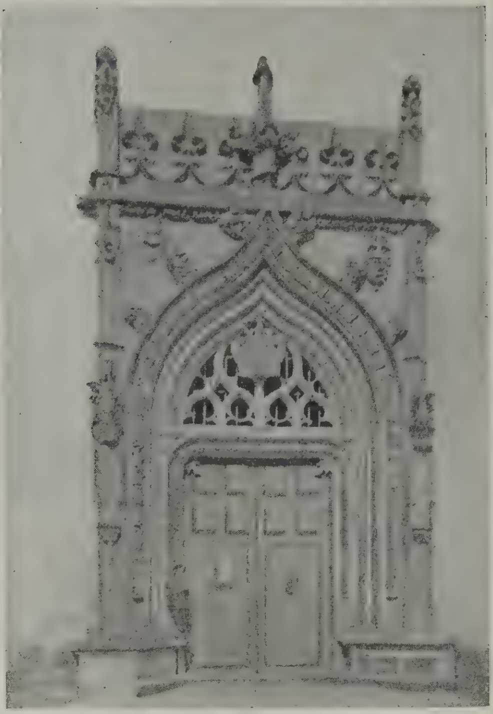
CHAPEL AND TEMPLARS' OCTAGON, THE CONVENT, THOMAR.



SIXTEENTH-CENTURY CLOISTER, THE CONVENT, THOMAR.



ST. JOÃO BAPTISTA, THOMAR.



WEST DOOR, ST. JOÃO BAPTISTA, THOMAR.

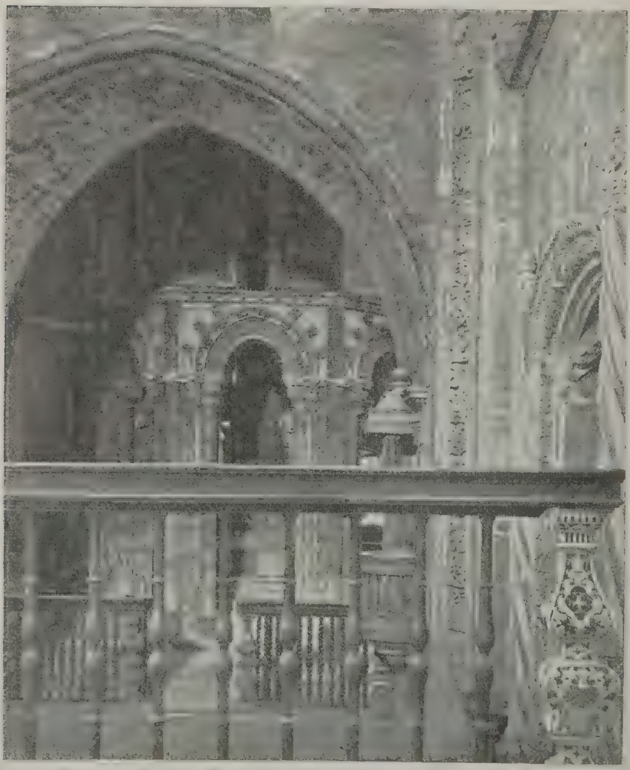
epithets which certainly cannot be applied to the Manoëlian ornament surrounding the chapter house window externally. This wholly baffles description.

The general effect of the exterior of the Manoëlian nave, as seen from the roof of the south-west cloister, is no more an exaggeration than is much of the later "flamboyant" work in France. There are buttress pinnacles at Beauvais, for instance, which these closely resemble; but no Frenchman of that time would have made the mistake, committed here, of introducing a rich parapet in competition and at the same level.

The cloisters differ considerably from one another, but the larger courts are Renaissance, and as one wanders about from one to another the impression is that of a great French château of the best period—quite the best, for the feeling, the proportions and the details are even Italian more than French, and the Italian of Venice and Vicenza rather than of Florence or of Rome. Have these ever been measured and studied seriously, one wonders—and if not, why not? There are few difficulties about sketching permits such as one often has to contend with elsewhere, and a little tip does wonders in securing help when once one gets there; and these cloisters are worth going a long way to see. Note the treatment of the angles and the spaces between the arches, and the use made of the square column in the upper storey—and the whole fine sense of proportion!

Leaving the Convent, and descending the hill, the little church of St. João Baptista attracts attention, with its whitewashed front flanked by a square tower, which is abruptly changed into an octagon at the belfry level—with bells, as usual, hung in the arched openings—and terminated in an octagonal spire with a sufficiency of parapet at its base. The contrast between tower and church is extreme, but the west door may be original if the whitewashing is not, and its treatment is unusual. There is the effect without the reality of deep recessing, a band of flat ornament—the usual autumnal foliage of late Gothic work—being carried round the ogival head and down the sides to the plinth, after the manner of an architrave, while the whole is enclosed in a rectangular frame terminating in a cusped cresting of fleurs-de-lys.

The church is far more noble internally than the exterior promises, and the corbelled pulpit is of rare beauty, apparently belonging to the period immediately precedent



INTERIOR OF CHAPEL AND TEMPLARS' OCTAGON, THE CONVENT, THOMAR.

TOMB (1575) ST. MARIA, THOMAR.

DETAIL OF CHAPTER HOUSE WINDOW, THE CONVENT, THOMAR.

to the Manoëlian, for its detail has none of the clumsiness of that epoch. On the contrary, it is crisp and delicate and sharply defined, like the best French late Gothic carving, which it closely resembles both in its entangled foliage and in its "flamboyant" minor tracery.

Another church, some half-mile to the east of the town, St. Maria dos Olivaes, is historically interesting as being that in which the Order of Knights Templars was formally instituted, though there are scarcely any signs of the original tenth-century edifice left. One or two small windows, now blocked up, may go so far back, and so almost might the lower part of the sturdy detached bell-tower. The Church has been evidently altered and rebuilt more than once, and is now undergoing "restoration," much in the sense in which the word was used in England fifty years ago—and there is little need to say more. Perhaps its most interesting feature is a recessed wall tomb over the priests' doorway in the north wall of the chancel, which bears the date of 1575, and is extraordinarily similar to English Elizabethan work, though it is difficult to recall another instance of the shafts of Corinthian columns being proportioned and turned like ballusters.

There is one, and only one, indication that the town itself was ever anything more than commonplace, but the exception is remarkable. It is the main doorway to what must once have been a fine house, though it is now a wine store, and it bears the date of 1536, and is an example of the very finest Italian of that period, which is about that of the Renaissance cloisters in the convent. Almost its duplicate is to be seen in the Italian court of the Victoria and Albert Museum; but how came it in Portugal, exposed to all the rough usage of a little country town?

Correspondence.

The "Nestor Martin" Kitchen Stove.

To the Editor of The Architect.

Sir,—Can you tell me where I can obtain the "Nestor Martin" kitchen stove. It is much used in Belgium. I saw several while I was in Ostend, but upon enquiry could not ascertain whether there was an English agent. Perhaps you will be good enough to try and help me.

Again, where can I obtain old railway sleepers? Do you know any firm that deals in them. I only want about a dozen or so.

Thanking you in anticipation,—Yours, etc.,

Grove House, A. Owen Jones.
13 Holland Road, Hove.

A Proposed Form of Lease.

To the Editor of The Architect.

Sir,—Herewith I enclose copy of a proposed Lease which I venture to suggest might serve as a guide to a large number of Tenants in the position where an agreement is either void or lost—or where casual leases are entered upon "verbally." In fact it fully reveals the implied liability and conditions of an open lease whether same be valid or void unless such waivers are granted by the lessor which tend to cancel certain present herein contained.

If you will insert this in your paper in the general interests of your many readers, you will oblige an old subscriber.

Yours, etc.,

Rossmoyne, Southfield, Hessle. B. Smith.

Agreement made the day of 19
between
of the one part and
of the other part Witnesseth that the parties hereto mutually contract and agree with each other and the said Lessee so far as the stipulations and provisions of this lease, matters and things herein mentioned or referred to, are to be performed and observed by him—hereby agrees with the said Lessor so far as the stipulations and provisions matters and things are to be observed and performed by him hereby agrees with the said Lessee as follows viz.:—

1. In the construction of these presents when the Agreement will admit it the term Lessee shall mean the said
his heirs executors or agents.
The term Employer shall mean the said
his heirs executors or agents.
The term Surveyor shall mean some one or more professional men engaged by either the aforesaid Lessee or Lessor respectively to inspect and report on behalf of either party with respect to estimating liability upon either the Lessee or Lessor respectively in connection with the ensuing presents referred to in the herein mentioned Lease.

2. It shall always be assumed that an intending Lessee shall be fully acquainted with law as existing in England at the time of entering into the herein mentioned Lease Furthermore he shall be always assumed to have satisfied himself before entering into this Agreement that the demised messuage shall withstand any or all usage, accidents or strains which might come to fall upon it during the entire period occupied by the Lessee or during the term stated under the Lease.

3. All fair wear and tear is deemed allowable and does not form a dilapidation unless same occurs in form such as negligence to observe and repair same shall lead to such further damage occurring as shall result in a greater depreciation than would be reasonably expected to occur through the effects of time and elements.

4. Fire by lightning or damage by tempest is allowable under the covenant but accidental or wilful fire and damage by any other person or things effects a liability on the Lessee and under the latter conditions he shall be required to reinstate the part or whole of the messuage where affected and demolition or damage under this covenant shall not form a waiver to the Lease and rent shall be paid until expiration of same.

5. The Lessee shall not hold the Lessor liable for any repairs whatsoever.

6. The Lessor shall be expected and must to the best of his knowledge inform the Lessee, prior to signing this Lease or Agreement, that the said messuage is reasonably fit for habitation, but this shall not form a waiver under the first covenant.

7. In the event of fire or tempest resulting in damage or complete demolition of these demised messuage—the Lessee shall not be required to rebuild though he may have insured the premises and received the insurance money due.

8. It shall be deemed a means of terminating the Lease and rendering the Contract void if the two parties appurtenant to the Lease do mutually agree to terminate this Lease.

9. Should the Lessee build or cause to be built within the precincts of this messuage any additions or alterations, he shall be liable under the covenant to keep same in good substantial repair in fact his liability herein shall be nothing less than applies to the entire presents of the Lease regarding the demised messuage as formed the original subject of the Lease.

10. The Lessor shall not under any consideration accept liability in reference to any addition or alteration executed therein.

11. The Lessee shall undertake any addition or alteration at his own personal risk of adding to or destroying the demised messuage as in the opinion of the Lessor his heirs or executors the latter shall have the power by law to condemn same and hold the Lessee responsible to remove and replace everything in a condition or state as existant at the time upon entering into the Lease and though the additions or alterations shall have improved the messuage in every way.

12. Where any building referred to under the Lease shall have one or more of its walls forming a party wall with an adjoining property the Lessee shall be required to observe and comply in every respect to the Law as relating to party walls and in the event of damage arising to this wall or to any other object

consequent upon this party wall, he shall be required to fully reinstate same to its former condition having regard to the fact that the said party wall forms the external wall or boundary of the demised messuage.

13. The Lessee shall not be liable under any circumstances for anything whatsoever which might have occurred in any way to the messuage prior to this contract taking effect or after the expiration of the Lease.

14. Should the Lessee continue to use and enjoy the demised messuage after the expiration of the Lease he shall and must observe and comply with the entire presents of the expired Lease in every particular even as though the same were still existant and his liability shall only cease to be operative upon a signed and sealed document from the Lessor accepting the termination of the Lease and all its affects and so relieving the Lessee from any liability in any further particular from the date of this acceptance.

15. The Lessee shall be required to repaint the whole of the wood and iron work or that which was painted, when he came in, at the end of five years but this is no continuing covenant and he shall not be bound to repaint after the end of the first 5 years but shall accept full liability for any damage or deterioration caused by neglect to paint such things.

16. Should any accident or damage occur to any person or persons not being parties to this contract or to any thing or things not forming a part or parts of this contract but forming a part or parts of the property of any person or persons other than the parties to this contract—then the Lessee shall be held fully responsible and liable under this covenant for any and all damages which might from time to time occur.

17. The Lessee shall not be held liable for damage caused through exceptional conditions of the Elements.

18. The Lessee shall, at all times when occasion requires, uphold, sustain, repair, cleanse and protect the premises but if repaired within a reasonable time before the expiration of the Lease, he shall be bound only to clean the old paint and not repaint. He shall maintain the whole of the paving, paling and fencing in a condition equal to that at the commencement of the Lease.

19. The Lessee shall not be held responsible for the normal action of time and the elements where the premises were old at the time of granting the Lease.

20. At any time during the Lease where the Lessee shall have obtained a written statement from the Lessor granting certain privileges on the Lease which heretofore have existed in the state of liability to the former, it shall be held a waiver to the contract respecting such presents referred to.

21. The Lessee shall not cut down or cause to be disturbed any trees or garden growth as was existant at the time of entering upon the Lease and shall not be permitted to remove plants etc. which shall have been inserted during the Lease either by the Lessor or himself, except that he replace same by another equally good specie.

22. The Lessee shall under no consideration sub-let the messuage unless a written authority has been obtained and signed by the Lessor, and still the Lessee shall be held liable to all the presents in the Lease directly payable to the Lessor unless the latter shall have cancelled the whole or part of the forementioned Lease, and it shall be observed that no liability whatsoever attaches itself to the sub-lessee in respect to the original Lessor and only upon a fresh contract and Lease being drawn up between the sub-lessee and his direct lessor shall be liable to the latter, but the original Lessor shall at all times have power to instruct his own tenant to maintain, uphold, repair, paint, cleanse, scour, and glaze any portion of the demised messuage, failure to comply with such request shall be held a dilapidation at the expiration of the original Lease.

23. The Lessee shall under no consideration use or allow to be used any part or the whole of the premises for any purpose other than that which was intended and granted at the commencement of the Lease and only upon a written statement by the Lessor shall the premises be so utilised and in no way shall this form a waiver to the original Lease.

Colour in Architecture.

To the Editor of THE ARCHITECT.

SIR,—It is interesting to note, in some of your numbers of January, that the question of the exterior colour of our buildings is again becoming a matter of public interest.

It is as "*exterior* colour" that it must be emphasised, for, curiously enough, no one seems to dispute the necessity of adequate attention to colour for interiors!

Unfortunately there seems to be an unconscious acceptance of some idea that bright or gay colour on exteriors is in some way undignified, and thus unbecoming to architecture. Such an idea is, of course, fallacious. Colour is not deterrent to dignity, but it is certainly true that a filthy coat of dirt is undignified and distressing in the extreme.

On reading the short article by my friend R. W. Wilson, I was surprised to note your emphatic disagreement at the end of it. Had such a view been expressed in some journal ignorant of matters architectural this would have needed no comment. But it occurs in one of the foremost architectural journals, and as the editorial policy seems to go against a serious consideration for exterior colour, this may influence young architects to think the matter unworthy of attention.

I have not time nor have you the space, to set out here a dissertation on the intrinsic association and necessity for colour in architecture. I can simply assert the historical fact that in all ages, in all countries, until recent times, exterior colour has been a well-considered factor in architectural schemes. Some times it has been applied colour, at other times it has been the natural colour of carefully selected materials. But then they never had to contend with that enemy to life, the venomous coal smoke which pollutes our bodies and buildings incessantly.

But, considered as an aesthetic necessity, colour is essential. The natural forms of clay or brick, marble and wood are all changed to architectural forms. The opponents of colour would like to leave the natural colour unchanged, and not only unaltered, but so finished as to be unable to resist dirt and decay. This is not true architectural economy but simply an absurd and unscientific unwillingness to recognise the conditions in which buildings are erected in modern conditions.

Also, may a statement be made refuting an idea which the anti-colourists are never tired of quoting? They say that it is no good trying to get good colour "under our grey skies and rainy climate," and further that "only in countries where the climate is bright and sunny is it possible to have bright colours so that they will harmonise."

Having spent some time in travelling about India, and seeing its buildings under all conditions, I have no hesitation in asserting this yarn on the brightness of light requiring brightness of colour to be one that must only be put forward by people who have never been in such countries.

What is the truth about this connection of colour with climate? It is the fact that the actual light is much more vivid, and not only that the sky is unclouded for most days. It is also true that the air is less full of flying dust and of clouds of smoke. In consequence *all colours have a tendency to seem brighter.* But the bright colours are no brighter, in comparison, than the same colours are on a cloudy day in the rainy season, or than the same colours would be at home. A piece of scarlet cloth from Manchester is no brighter merely because it has been transported to India to form an item of clothing. Its illumination *alone* is merely brighter.

So the truth is that this argument is exploded by the fact that each time and place has a definite scale of colour. Bad colours are not harmonised by sunlight; they are, if anything, more unendurable, and certainly all landscapes I have seen in India are at their best at dawn or dusk, when the contrasts are less intense. But the same bright colours are there, and are then more beautiful.

The "travellers' tale" about the "colour of Eastern cities" is, I fear, one that arises from novelty of form rather than of colour. There is just as much colour—but in dresses that are not so different—on a seaside front at home as in the streets of an average Indian city, but on the buildings there is less. I am unable to see why more colour, even if only in the form of white or tinted limewash, should not be used at home. It is true that there is plenty of rain to wash it off. So there is here, and much more heavy when it does come!

Colour in relation to climate is purely a question of apparent scale, just the same as the artist finds when he sits down to suggest a landscape on his paper. His whites are not so light as those of Nature, nor are his darks so black. He must compromise—he must draw in the ends of his scale. If architects will do the same in designing exteriors, and always harmonise their colours, they will not fail to produce many attractive exteriors.

W. G. RAFFÊ.

F.R.S.A.(Lond.), F.I.B.D., A.R.C.A.(Lond.),
Department of Industries, United Provinces, India.

Lal Bagh, Lucknow,
United Provinces, India.
February 18, 1923.

During the past two months the Ealing Town Council have passed plans for the erection of more than 130 houses or flats.

The Academicians of the Royal Scottish Academy will shortly proceed to the election of four painters and one architect to the Associate rank.

Co-operation between the Architect and the Electrical Engineer.

A joint meeting of the Institution of Electrical Engineers and the yal Institute of British Architects was held at the Institution of ectrical Engineers, Savoy Place, Victoria Embankment, W.C.2, March 15, when introductory papers on the subject of 'o-operation between the Architect and the Electrical Engineer" re read by Mr. Francis Hooper, F.R.I.B.A., and Mr. J. W. uchamp, M.I.E.E. The first being brief, we can give in l ; the second is represented by a series of extracts.

I.—By FRANCIS HOOPER, F.R.I.B.A.

Science," the late Sir William Preece wrote in 1892, "is v advancing with giant strides. She has become the helpmate man, and Science is but the knowledge of Nature, whose laws the thoughts of God."

'As Science and Art are the chief instruments of modern ilization, so the engineer and the architect must work hand hand."

t behoves all architects to voice the indebtedness of the comnity to the engineers who have already accomplished so much l are yet capable of vast and unexplored potentialities. Some remember the delight felt when the cranked and wirerated front-door bell was displaced by the electric gong ; en the colza oil lamp, involving daily trimming, was sursed ; when the hand-power goods-life was scrapped, together h the labour connected with the hand-bellows of the church an.

SOME PRESENT-DAY USES OF ELECTRICITY.

lectricity is to-day employed for lighting in positions and purposes until recently unthought of : in street and workshop, dy and operating theatre, in surgery and medical bath, in way carriage, banker's strong-room, housewife's food store, ce and cottage, in places of worship and amusement, in ure and sculpture galleries, museums and schools, in flower dens, in conservatories and winter gardens ; in ventilation xhaust or supply fans ; in acoustics by means of telephone vireless communication, thereby facilitating trade and busi intercourse and efficiency, and yet all in infancy with eveloped possibilities ; in advertisement, enabling the sales to exhibit favourably in his windows and showcases his ls to potential purchasers as well as in the transport of engers and goods ; in engine driving machinery for the uction of commodities and the refrigerating plant, for preing perishable foodstuffs until required for consumption ; hronized time-pieces can be installed in the home, hotel, -block or factory, adding much to efficiency and the saving orry. X-rays, which have proved of such inestimable value ne surgeon and dentist in their work, are already used for esting of steel and may, in all probability, be employed in ection with many other materials essential to the architect. ie generation and methods for distributing electrical energy ot concern us on this occasion beyond the desirability of ng that the present dependence upon coal should be regarded nporary and only a stop-gap until replacable powers become able, and that efforts might well be made to determine the suitable voltage for general use, and that uniformity ighout the country might be sought to simplify the task e important industries concerned in the manufacture of gs and appliances.

ny topics might open wide fields for discussion, but the r will confine himself to a brief consideration of the follow —

(1) Lighting (diffused and concentrated),
(2) Heating and cooking,
(3) Ventilation and sound,

s bearing in mind that unemployment is most readily over by increased facilities for employment, and that spiritual can only be invoked where the commonweal is in view.

LIGHTING.

umerable sub-divisions would be required to classify the l uses of artificial lighting, each needing specialised contion ; suffice it to generalise under two only—viz., diffused oncentrated.

used lighting is required in the street, railway station, , market, gymnasium, school, lecture hall, swimming bath,

centrated lighting is required in the living room, bedroom, oom, study, business house, museum, picture and sculpture , warehouse, shop, theatre, concert hall, church, council and mine.

only can lamps be fixed in new positions, visible or con, but they can also be controlled from a distance noiselessly and instantaneously, reflected and graduated, without impoverishing the air or risking fire—and even under water—unimpaired by wind, rain or lack of oxygen.

Danger of glare.—One important factor seems, however, at the present to require very special and earnest attention, as it affects comfort and economy and, hence, the popularity and usefulness of electric lighting. The danger of glare is one which concerns both old and young, the man in the street and the child in the school, the worker at the desk, the bench, the surgery, the pulpit as well as the pew.

In the last century candle-power was limited, and many present-day problems were unknown. Delightful was the small lamp or candle upon the writing-table, in the club reading-room, the choir-stall, the drawing-room, each fitting carefully suited to its purpose. To-day, too often, excessive candle-power dazzles, irritates and injures the eye and the brain alike, diffused glare destroying the restfulness and value of studied shade.

To-day some advertising agents, fiendishly regardless of self-respect and consideration for the public, have made vulgar some of our important streets and many of our open spaces. Upon this the public opinion needs education.

Street lighting.—Street lighting is being carefully and earnestly studied by many of our public authorities, and elevated central lamps in our thoroughfares have permitted the removal of the standards which, in crowded thoroughfares, needlessly reduced the capacity of our footways.

Shop lighting.—The lighting of shops is no unimportant matter to the public, as well as those who seek to display their wares. The advantage of the concealment of lamps behind screens has been successfully demonstrated by many, adding much to the attractiveness of the street and the prospects of business.

Façade lighting.—Much improvement is possible in lighting the outside of buildings of popular resort. The outlining of windows and cornices by lamps wholly destroys the value of an architect's work ; whereas, diffused and concealed lighting from a distance may be both distinctive and dignified.

Internal lighting.—Internal lighting needs consideration on different lines. Concentration is, in many cases, of material importance. Whether in study or business house, museum, picture or sculpture gallery, place of worship or amusement, the principles of the theatre may well be entertained. Delightful is a building in which the sources of light are hidden, its direction focused, and the eye allowed the relief and rest such as Nature affords in the shade of a spreading tree during a bright summer day.

Pictures and sculpture.—Many a home contains pictures, sculpture and other choice objects too often forgotten or overlooked by both occupants and visitors. Rarely do we find objects lighted with studied consideration of the best point of view and their background. This comment applies equally to most of the costly memorials erected since the war, whether they be in the open or under cover ; hence, after dark, they are lost sight of and their purpose nullified.

Gardens.—Public and private gardens too might be turned to good account by artificial lighting and enjoyed by the many workers, whose leisure during daylight is but too limited.

HEATING AND COOKING.

Under this heading must be classified all electric radiators, fires and cooking appliances, which are now beyond the experimental stage and are presenting opportunities to the architect where electrical energy can be obtained economically. Many establishments must be within reach of water-power still unemployed for the purpose of generation. The architect and the engineer should, however, never lose sight of the fact that neither of these provides automatically for the essential change of air in the apartment in which they are used, as is the case with the coal fire with its chimney, and careful provision must be made for efficient substitutes.

VENTILATION.

Exhaust and in-take fans for promoting ventilation are of the greatest importance to the architect, enabling him to provide the movement and renovation of air and means of remote control, thus making it possible to meet and overcome variations of temperature or fluctuations in the number of occupants of an enclosed space. This has already served to permit the use of many buildings for purposes quite impossible in their absence.

MINES, TELEPHONY, ETC.

The lighting and ventilation of mines is beyond the direct scope of the architect, but, as a citizen, he cannot be indifferent to the welfare, health and safety of the workers upon whom depend the winning of so many daily necessaries.

Similarly the development of telephony and wireless communication are outside our range on this occasion, but the connection between ventilation and the study of sound may be less remote than is commonly supposed, for acoustic defects are reported to have been overcome by improved ventilation of buildings.

In conclusion, the health and well-being of the community are so much affected by our respective occupations and interests, that I trust I have indicated, though most inadequately, some of the many directions in which co-operation of the architect and engineer in our several activities is both desirable and necessary.

II.—By J. W. Beauchamp, M.I.E.E.

In the last event the architect in all his work has in mind the occupant or ultimate user of the structure for which he is responsible. Similarly with us, the basis of all our work, scientific or commercial, lies in discovering the needs of the ultimate consumer of electricity and meeting them in a way which will give satisfaction.

Our work is perhaps a little complicated by the fact that the user of electricity depends upon three leading sections in our industry for his complete service.

The advantages of electricity need no bush in this place, but to enjoy them one must have the joint assistance at some stage or other of the supplier of electrical energy, the maker of electrical apparatus, and the contractor who installs and maintains it. We also seek the important assistance of the architect, consulting engineer, and other designers or advisers who at various stages may come between us and the final user.

I feel that in many cases the architect may not be brought so closely in touch with the several leading branches of the industry as is desirable, or he may not perhaps realise to how large an extent the final satisfaction of his client depends upon the co-operation of those several branches—if this is the case the blame does not lie with the architect but with the electrical industry for having in a general way neglected him.

I am aware that in many respects the modern architect is well up to date electrically ; he can and does claim the assistance of the consulting engineer and of the electrical contractor, and the various manufacturing experts on illumination, heating, ventilation, etc., are only too anxious to serve him, but, after all, we are dealing with a line of scientific invention and with an industry which progresses at a very rapid rate, also one which is subject to widely varying conditions in different districts and countries. Applications of electricity which are commonplace in certain areas may, for the time being, be impossible and almost unknown in others ; practice which is standard with some undertakings may still be regarded as only in an experimental stage by others, and for this reason we feel that something more should be done, if possible, to keep in touch with so important a colleague as the architect.

It is at least as necessary for the electrical industry to advise the leaders of other professions and industries as it is for the electrical industry to advise the public. So closely are we now entering into the field of work of the architect, the ventilating engineer, the works production manager, and all whose business it is to handle material or transport, that it is essential for experts in each of these branches to have some knowledge, wide if not deep, of electrical applications, and particularly essential that that knowledge should be kept up to date.

It has sometimes been our experience that after working up a desire for certain electrical applications on the part of the client, the business fails to mature owing to the opposition of his architect who, not perhaps familiar with our recent achievements in this particular direction, wishes to save his client from what he considers to be an experiment, but what we know to be a practical success under the particular conditions in question.

In the past perhaps some mystery has surrounded electricity and the electrical engineer. The magic has, however, passed ; we want our appliances to be regarded as a superior kind of ironmongery or engineering material. We know precisely what we can do under different conditions and what the various operations will cost the user, although it would be bold to say what may be done in a few years, or to set any limit to progress.

Broadly, however, our great prospect lies with the middle classes, the dweller in the villa and the flat. In the wide range of homes supported by incomes of, say, three or four hundreds a year up to as many thousands, economy is important in varying degree, but there is usually willingness to spend reasonably for some extra comfort or simplification and the means of making housekeeping less of a trial.

In dealing with this class of work, we suggest careful consideration for the combination of fuel and electricity, confining the burning of coal or coke to one, two or perhaps three points, and using electricity for all occasional or short-hour heating, for cookery, suction cleaning or other work of that kind to wh mechanical power can be applied.

It is difficult to lay down the law as to competitive rates electricity, fuel or gas, but the following broad statement m help to define limits and lead to further investigation as each c arises.

Electric lighting gives complete satisfaction at all rates up 10d. or 1s. per unit, these figures being relatively high to-c and bettered in most areas.

For occasional or short-hour heating, and for the regular all-the-year-round cookery of food, rates of 1d. to 2d. per u against gas at 4s. to 5s. per thousand feet (usual calorific valu give satisfaction. Roughly one may say that the price per u may range from one-sixth to one-twelfth of the price per the

For small power drives or heating appliances, fans, flat iro suction cleaners, kettles and detail cookery apparatus, c siderably higher rates will generally give complete satisfacti owing to the convenience of these devices and because th account for but a small amount of electricity in the course a year.

The above figures are a rough guide to comparative valu electricity in terms of gas ; there are other considerations wh may make or mar some of this business.

In some classes of property the more expensive pieces apparatus have to be let out on hire. Again, their free or limi use may depend a good deal upon the wiring installations be provided with convenient outlets for connection, etc.

It may be of interest to consider probable expenditure up electricity in a middle-class house, taking a house inhabited the more or less standard family, five or six persons, say th adults and two or three children, pre-war value of the ho £35 to £70 per annum.

Lighting consumption 200 to 300 units in the year at 7d. unit, say £7 per annum.

Cookery, regular, on electric range : 1 unit per head per day $350 \times 5 = 1{,}750$ units in the year, at 1¼d. per unit, say £9 3s. 8d. per week).

If in this case electricity is used only for small appara it will be seen that about 2 units a day becomes available to consumer for an addition of only 50 per cent. to his light account, and this would cover the regular use of a flat ir suction cleaner, washing machine and kettle or small utensils

LIGHTING.

Out of the work of the electric lamp maker has arisen modern science of illuminating engineering. The ability obtain powerful and concentrated light sources comparativ unaccompanied by heat has enabled lighting problems to approached in a scientific manner and optical or decorative ne to be given full scope.

The architects have assisted in the work of the Illuminat Engineering Society, and are acquainted with the researc made by that body into the lighting of schools, public buildin cinemas, etc., all of great value, leading to economy, protect of eyesight, and a better public understanding of good lighti

A recent example of this work is found in the investigati made into the lighting of the Ministry of Pensions buildi where a by no means indifferent lighting installation was alte to give much more effective results with an important decre in running cost. The National Physical Laboratory has carr out experiments in lighting in specially constructed roo exploring the features necessary for good illumination.

There is room for the closest collaboration between the ar tect, the electrical contractor and the illuminating expert, the help of the architect is the more welcome as in this work have so often to make some compromise between scient perfection and the taste and desire of the client, who must, buyer, be guided rather than forced towards better methods

The relatively low cost and the incidental economies of e tricity now make it possible to consider something more t the bare lighting needs and to introduce decorative feature great value. For example, reflected or indirect illuminat beautiful as it is, suffers from a certain monotony and lack shadow or contrast, which, although useful in drawing offi works and large buildings, may for domestic use need to be mi with direct lighting in order to get a pleasing mixture of light shade. The decorative wall bracket, and a variety of orname fittings with small lamps, can be employed with regard to app ance rather than scientific illumination and without fea unduly increasing the cost.

Proper contrast in lighting aids mental concentration, experiment has shown that the best practice for school, work and factories is to provide reasonable and well-diffu general lighting, so as to prevent accident and facilitate m ment, and in addition to this to allow the eye to work in a str directed light on blackboard or tools.

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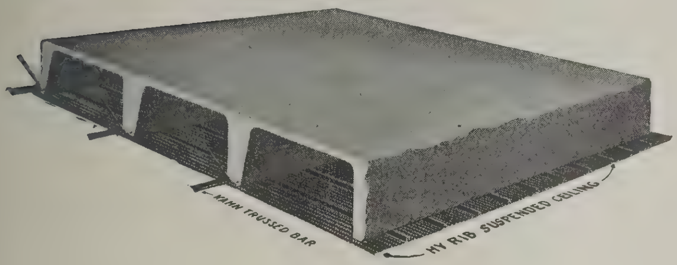

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The architect is also interested in the growing use of flood lighting, first employed with the object of throwing up the features of fine buildings, and now being extended to the lighting of poster hoardings and similar work. This can be very useful and is less troublesome than the older methods of outside decorative lighting, whilst for business purposes it has that mixture of dignity and impudence which appears to be the foundation of modern publicity work.

In the lighting of churches we need the help of the architect very much. A good deal of excellent work has been done by the illuminating engineer, but, broadly speaking, the lighting of places of worship is bad, the standard is too low for reading, and the method is unfavourable to concentration. Latterly there has been a tendency to introduce some little dramatic element into this work, using concealed sources of light to throw up the features of the building and focus the attention of a congregation.

HEATING.

The growing use of electricity as a means of artificial heating is still little realised in many quarters. In approaching the public one of the difficulties is that they regard electricity as performing its various duties without giving off heat—largely our own fault.

It has now to be made clear that electricity is a form of energy which can be converted into heat with peculiar ease, given reasonable rates for the supply as already exist in many places. It offers the most perfect method of warming the air, heating solids or liquids, cooking food, and carrying out many artificial heating tasks in industry. The end of this work is not even in sight. New methods enable energy to be stored in the form of heated water or heated solid materials, and will give us a large proportion of the artificial heating work of the world because these storage methods make it possible to take electrical energy at times when it is cheapest and most convenient for the supply undertakings to deliver it and store it in the form of heat against the time when the consumer may need it.

POWER.

In the supply of power the electrical engineer meets but little competition, at least until large powers and long hours of use are involved, with the exception of building operations where motors of considerable size may be employed. The architect is more particularly interested in the use of power on a small scale as for lifts, central vacuum cleaning-plants, ventilation, etc., but recent years have increased the scope of the small electric motor, and even in the home its use for portable suction cleaners and for washing and other light machinery is extending. It calls perhaps for little attention in house design beyond suitable provision being made when the wiring is carried out, but the result of "mechanizing" the housework may well be to give the designer more freedom, and certainly all electrical applications help the decorator by encouraging an increased expenditure in view of the longer life and more enduring freshness of furnishings where dirt is reduced by the partial suppression of fires and by cleaner methods of removing dust and carrying out other household tasks.

COOKERY.

Where electric supply conditions permit the regular cookery of food by electrical means, the fullest advantage should be taken of the method. A more convenient arrangement of kitchen and offices becomes possible when the range need no longer be located near a chimney but can be placed where convenient for natural light and in relation to dressers and sinks and the other equipment of which it is so important a part. Electricity in the kitchen, even if associated with the use of fuel for water heating, allows most compact arrangement, reduces fuel storage space and puts the principal office of the home on quite a different level in regard to cleanliness and ease of working.

In converting old and large houses into flats, the value of electricity becomes very apparent, making possible arrangements which could not be carried out with any other means of heating.

LIFTS.

The architect has hardly followed up the advantages of the electric lift as rapidly as he might have done, and, in many instances, still provides a handsome and capacious staircase whilst putting the lift in some more or less out-of-the-way position.

Naturally the designer is reluctant to lose the decorative possibilities of the staircase; but where buildings are erected for utility rather than ornament it appears that the time has come for the staircase to take its proper place as an alternative or emergency means of moving from floor to floor, and attention should be concentrated more upon the lift and particularly upon the approaches to it and its position in the building.

In many cases its advantages and conveniences are unnecessarily discounted by difficulty of ingress and exit with the consequence that the young still use the stairs for short distances to an unnecessary extent and so defeat to a certain extent the object of the lift builder.

BUILDING WORK.

In the use of electricity in building operations the actual cost of the energy is generally a small matter; the lighting of building works all night without danger, operating cranes without the use of fire and inefficient steam engines, handling fuel or ashes and similar employment of this form of power on constructional machinery have become common practice amongst builders where power supplies are available.

The employment of electric welding and rivet-heating are less well known, but already we have examples of electrically welded steel roofs, and have shown the superiority of this method of heating rivets for constructional steel work. Further advance in these methods will offer many opportunities for change in design and building practice.

CONCLUSION.

In conclusion, the author would venture to suggest for the consideration of the architects that it might be possible to form some permanent *liaison* between their Associations and the Associations of the electrical industry, perhaps a joint Committee drawn from the Councils of the several Associations and sitting at intervals to examine and ventilate any proposals put forward by either side.

It is not suggested that this Committee should give technical advice or do any of the work now done, and properly done, between the architectural and electrical professions by the employment of consulting engineers, contractors or manufacturers, but that the Committee should deal more particularly with questions of policy, or possibly propaganda, between the two professions and with questions as between, for example, the electric supply industry, the architect and the consumer. Such a Committee could take a very independent line and could advise architects whether conditions in a particular place were favourable or not to this or that application of electricity and in many ways assist them with unbiased guidance, leaving them to the usual sources for all detailed information and help.

Out of such a Committee might arise some method for instructing architectural students in electrical matters up to a certain point, as, for instance, providing them with lectures on the economics of electricity supply, giving the young architect a clear though perhaps superficial view of the conditions which govern the sale, purchase and use of electricity, and leading him to recognise the need for more detailed study of the subject.

Competition News.

The Secretary of the Royal Institute of British Architects has received a cablegram from Mr. John W. Simpson, Past-President R.I.B.A., the assessor in the Cairo Hospital Competition, to the effect that he has made his award, and that the successful competitors are Messrs. Charles Nicholas, F.R.I.B.A., and J. E. Dixon-Spain, O.B.E., F.R.I.B.A., of 19 Hanover Square, W. The second place in the competition has been awarded to Messrs. Lanchester, Rickards, Lucas and Lodge, FF.R.I.B.A., of 19 Bedford Square, W.C.

The Incorporation of Architects in Scotland announces the following prizes and studentships for 1923: (1) The Rowand Anderson Medal and £100 for a Design based on the study of Scottish Domestic Architecture, fifteenth to seventeenth century. (2) The Rutland Prize of £50 for the study of Materials and Construction. (3) Maintenance Scholarship of £50, tenable for three years, in Diploma Course at Central Institution. Particulars (price 6d., postage ½d.) obtainable from the Secretary, 128 George Street, Edinburgh.

Members and Licentiates of the Royal Institute of British Architects must not take part in the Ossett War Memorial Competition and Haifa Business Centre Competition, because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions. Members of the Society of Architects have also been notified that the conditions of these two competitions are not in accordance with the Regulations, and they are requested not to take part without first ascertaining from the Secretary that the conditions have been approved by the Council.

The Leicester Corporation and Archæological Society have decided to make excavations in Leicester Abbey to discover the tomb of Cardinal Wolsey. Wolsey was buried in the Abbey but the site of the tomb has long been lost.

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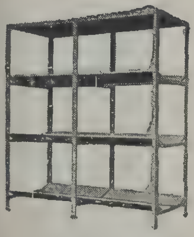

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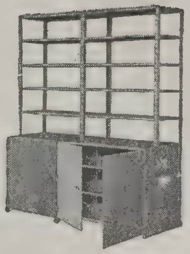

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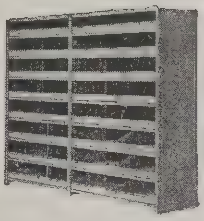

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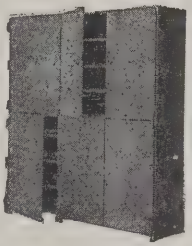

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Mediæval Wall Paintings.

In the Victoria and Albert Museum is an important collection, not so widely known as it deserves, of drawings and tracings of early wall paintings of the British School prior to the Reformation, and of paintings from Rood Screens. A selection of these has now been placed on exhibition in Rooms 71 and 72 of the Department of Engraving, Illustration and Design. A large section of the exhibits consists of the remarkable facsimile copies of thirteenth-fifteenth century wall paintings, made by Mr. E. W. Tristram, who for twenty years or more has devoted himself to the special study of early wall paintings, both ecclesiastical and domestic, in Great Britain. Of special interest are his five drawings of the painted decoration, which has only lately been disclosed, on the tomb of Edmund Crouchback in Westminster Abbey. These are the beginning of a series of records that will be made in Westminster Abbey, where the examination conducted by Professor Lethaby and Mr. Tristram is revealing a large amount of hitherto unknown painted work of the Pre-Reformation period.

Among other exhibits are several coloured tracings by Mr. P. Mainwaring Johnston, F.S.A., F.R.I.B.A., who, in conjunction with Mr. Charles Keyser, F.S.A., has presented to the Museum a valuable collection of drawings and tracings of ecclesiastical wall paintings in Great Britain, many of which have been lost or are rapidly perishing.

There are great difficulties in regard to the preservation of wall paintings, especially in country churches where the walls are affected by damp or possibly exposed to direct sunlight; and much importance attaches, therefore, to historical records, such as those in the Museum. Incumbents of churches, architects, and diocesan committees are begged to forward records and information to the Museum authorities, who, on their part, are ready to do everything in their power to give advice where it is needed on technical points and methods of preservation. Photographs are useful, but can do little more than indicate the general design, and cannot have the value of a carefully coloured scale copy made by an artist who is closely acquainted with mediæval work and treatment of colour. The Museum funds for this purpose are very limited, but in important instances the authorities will gladly work in conjunction with incumbents or local committees so long as, at any rate, part of the expense of making copies for preservation in the national collections is met by private generosity.

The Institution of Heating and Ventilating Engineers.

The annual general meeting of the Institution of Heating and Ventilating Engineers was held recently at the Holborn Restaurant, W.C., when Mr. John Watson was made president for the year. In his presidential address he said that he thought they were to be congratulated on the progress of the Institution, in membership and influence, during the 25 years of its existence. He pointed to the larger number of papers now presented annually, to their excellence, and to the increased attendance at meetings, as proof that the work of the Institution was more and more appreciated, and to the fact that several Government departments had appointed representatives on their committees as showing that their influence was extending, instancing the committee on fan standardisation now sitting. He also referred to the work of the Research Committee, and appealed to his audience not to allow the excellent and self-denying labours of the members of that committee to languish for any want of funds, pointing out that every 10s. subscribed really meant £1 to the committee, owing to the Government grant for research being on a £ for £ basis.

Touching the important matter of the education of the engineer, he thought they would agree that the facilities now offered were much in advance of anything previously available, and mentioned the recently issued pamphlet "Advice to Intending Students," which set forth the courses of study for each year of a minimum six years' course. He was convinced that, at the age of 21 or 22 years, any intelligent youth who had followed the prescribed course would be well informed in general knowledge of elementary engineering science, and in the basic facts of heating and ventilation. It was hoped that more and more youths would take advantage of the facilities offered as time went on.

He then referred to the aim of the District Heating Committee, which, in concert with a committee of the Institution of Electrical Engineers, had discussed the question of the proposed superpower stations for the supply of cheap motive power over the whole country. It had been shown that the use of condensing engines in existing stations led to an enormous amount of heat being carried away in the condensing water, whereas by using some of these stations as combined heating and power stations —assuming that they were conveniently situated, as many were —and utilising the exhaust steam for heating and hot water supply to buildings in the vicinity, something like 50 per cent. of the heat content of the fuel would be realised in useful work, instead of perhaps 12 per cent.

Plan of New York and Environs.

The Committee on the Plan of New York and Environs, acting in co-operation with the Russell Sage Foundation, has appointed a group of city planners to make a preliminary study of the environs of the city. The area to be studied comprises about 5,000 square miles and extends for a radius of from 30 to 50 miles from Manhattan. It has been divided into six sectors, which have been allocated to the members of the following group who have been appointed, under the chairmanship of Mr. Thomas Adams, to make a joint report on the opportunities and dangers in connection with the problems of the use and development of the land, communications, decentralisation of population and industries, and open spaces :—

Thomas Adams, of Messrs. Thomas Adams & Longstreth Thompson, Town Planning Consultants, of London and New York.

Harland Bartholomew, City Planning Consultant to the City of St. Louis.

Edward Bennett, of Messrs. Bennett, Parsons, Front & Thomas.

George B. Ford, of the Technical Advisory Corporation, New York.

John Nolen, Landscape architect, of Cambridge, Mass.

Frederick Law Olmsted, of Olmsted Brothers, the famous firm of landscape architects.

The report to be made by the group is to be submitted before the first of October.

Moss Empires are reported to have decided to reconstruct the Empire Theatre in Charles Street, Newport, at a cost of approximately £129,000.

Mr. George Reavell, O.B.E., F.R.I.B.A., is to be the architect for some houses which will be erected with the £10,000 gifted to Berwick by Mr. W. H. Askew.

A new bridge scheme, to cost £50,000, to replace the old stone bridge over the river Blyth at Bedlington has been prepared by Mr. L. Leeper, Borough Engineer to the Blyth Corporation. The plans show a high level viaduct, 1,500 feet long and 108 feet above water level.

The Glamorgan County Council have given formal notice of their intention to provide new elementary schools at Ystradmynach (400 children), Tiryberth (800), Pwllcarn (200), Penybont (300), Nantymoel (400), Llanharan (200) and Hendre (300). Additions are also to be made at Beddau (250 children), and Cwyaber (100).

The matter of providing a main drainage scheme at Aberayron, Cardiganshire, has for some time been under consideration by the Urban District Council. At a recent meeting, the Council instructed Major T. J. Moss-Flower, civil engineer, of Westminster and Bristol, to prepare a scheme embracing the whole of their district, and including an entirely new system of sewers, and sea outfall, etc.

Viscount Leverhulme is presenting to the Birkenhead Corporation a triangular corner site opposite Central Station, Birkenhead, as a site for the proposed Williamson Art Gallery, for which £30,000 was bequeathed to the town. In a letter Lord Leverhulme wrote: "I wish nothing but the Art Gallery to occupy the site." The remainder of the land is to be flagged and left as an open space. Viscount Leverhulme makes it a condition of this gift that he will approve the plans of the Gallery.

The Sheffield Corporation propose to erect 150 additional houses on their Manor estate at an approximate cost of £55,000. They are to be of the C, B, and E types, at estimated costs of £263, £336, and £388 respectively. This is an average estimated cost of £314 each, exclusive of land and street works. The scheme has been approved subject to the Town Clerk obtaining a promise that a subsidy will be forthcoming later with regard to the classes of houses which at the present time do not strictly come under the provisions as to subsidy.

The Lord Mayor of Sheffield (Alderman W. C. Fenton, F.R.I.B.A.) has issued a public appeal for funds to erect an obelisk as a war memorial for the city. It was originally intended to build a Memorial Hall, but owing to the financial stringency this proposal has been abandoned temporarily in favour of the obelisk, which is to cost about £5,000 or £6,000, and to be 80 feet in height. The design has been prepared by Mr. E. Vincent Harris, F.R.I.B.A., who was the successful architect in the competition for the proposed Memorial Hall.

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Ignorant Criticism.

The architect, like other men, is criticised, and often by those who have neither the necessary knowledge nor the discretion which should convince them it is wise to ascertain facts before pronouncing judgments. Last week we referred to the Hon. Augustine Birrell's amazing indiscretions on the subject of the Port of London offices, a building he has probably little acquaintance with.

There are people who are so ignorant and commonplace that anything unusual or unexpected is disliked. We remember a prominent engineer telling us that Bentley's cathedral was the ugliest building in London. We tried to ascertain his reasons, but all we could gather was that it was unlike Westminster Abbey! Many years ago we heard another critic condemn a very fine church of Pearson's because it was unfinished and had neither a tower nor spire; and we assume that many people knowing nothing of architecture, and caring less, consider a good church to be one which consists of a certain number of parts—nave, aisles, tower or spire—but are completely indifferent as to all question of detail or proportion. We are inclined to believe that Mr. Birrell belongs to the type of critics to which we have referred—those who will only accept the commonplace and whose complete ignorance of a subject does not produce modesty.

Another brand of architectural critic is represented by the art critics who write for the daily and weekly Press, and of whom Mr. Konody may be instanced as a type. These writers may have some knowledge of painting or of sculpture, but as a rule have only recently discovered the art of architecture. The knowledge that the public is beginning to show an interest in buildings is the reason why we are favoured with their opinion of our works, which is given with oracular decision and little modesty. Mr. Konody in criticising the model of Messrs. Peter Robinson's new premises shown in the Architecture Club's Exhibition states: "One cannot but notice with regret the entire absence of beauty, whose place is taken by an ugliness which is the inevitable result of ill-considered spacing and structure, meaningless ornament and constructed decoration rather than decorated construction."

Would Mr. Konody have said this if he had stopped to consider that the design shown is the logical result of an attempt to link up a building facing the Circus, the lines and proportions of which had been already fixed, with a building the total height of which, together with the individual height of the component floors, was altogether different? Has he considered that in the further part of the design the clients have insisted on wide windows without intervening piers, so that the task of the architect was to reconcile two entirely different types of requirements in one block? We think if Mr. Konody had considered those salient and governing facts his criticism would have been rewritten. Is it fair or just that the architect should be thus misrepresented?

In looking at the model, of which, we are sorry to say, the illustrations we gave do not convey an adequate idea, we were struck, first, by the exceedingly ingenious and interesting manner in which the change of heights and type has been effected. The lower Mansard roofed angles throw up and emphasise the higher central masses, while the projection of delicately designed shop fronts beyond the general face of the wall does away with any idea of weakness which would be conveyed by a flat front. The great arched entrances and the columned centre are both marked by quiet and dignified design, the whole giving a somewhat Baroque impression which is both novel and interesting. Though the design is the outcome of what one may describe as an accident, it promises, to our mind, to be more interesting, and not less dignified, than Messrs. Selfridge's new premises, with its frontage of 500 feet; and we have no regret that circumstances have forced the designer to a most ingenious decision of a very difficult problem. Nor is there any evidence whatever to support Mr. Konody's remarks about "meaningless ornament," for there is little if any ornament in the whole composition. In a word, the critic has made remarks which could be as easily written if he had never looked at the model at all.

Mr. Konody then talks of the wonderful Bush model in the same room, a fine example of well-composed mass without fuss. We agree with him that *if the promise of the model* had been fulfilled in stone we should have had a fine and interesting composition; but those who have seen the actual building we fear share our disillusionment. To begin with, we have the promise of a group of buildings which were dominated by a tower which was as essential to it as the ghost in *Hamlet* is to the play. We learn now that this tower is not to be erected for unexplained reasons, and therefore, to our mind, the whole composition, which depended upon it for completeness, is ruined. More than this, we were promised a building which should accord and be in keeping with Chambers's masterpiece, and we have instead of it a building in which *neo grec* vagaries are pronounced and dominant. We may instance the clumsy and unmeaning capitals on each front, which are unpleasing variants of the Corinthian capitals which were good enough for the great architects of the Renaissance. The manipulation of the masses are crude and wanting in finish; and though the interior design may have merit, the external effect is that of a somewhat commonplace series of blocks which seem to us unworthy of a good designer. We are sure that neither Messrs. McKim, Mead and White, or Messrs. Carrère & Hastings, would endorse the Bush House as being typical of the best American design, and that a critic who has a knowledge of his subject would agree with our views rather than those expressed by Mr. Konody.

While we welcome the notices of building which appear in the Press as evidence that the public are interested in building matters, we feel that the Press would perhaps be better advised if they obtained the assistance of those who have an intimate knowledge of the art rather than that of their general art critics, who are too often wholly or partially ignorant of a subject to which they have given insufficient attention.

Whether such criticism as we receive does good or harm is difficult to say. We do not suppose that those who have employed competent architects to design great buildings will be either much affected by praise or blame given to their work by writers in prominent papers, nor do we think that those who have to select an architect will be governed in their choice by the remarks of an art critic whose praise and blame are obviously lightly considered and given. We are, therefore, more concerned with the influence that hasty and unfair writing has on the standard of journalism than on that of architecture. To write a scathing condemnation of a man's work is comparatively easy, to justify it would frequently be most difficult.

Modern conditions have made problems increasingly difficult, while in England we have seldom either the money or scope which would enable us to rival the great structures of America. We have usually to adjust ourselves to smaller and more complicated problems in which compromises between our own conceptions and the wants of our clients have to be made, while we are often hampered by the necessity for adjustment between old work and new. It is necessary to consider all these factors if we wish to arrive at a fair and competent judgment of the wants and defects of contemporary efforts, and we can afford to disregard many things which are said of us in the public Press, the writers in which are making essays in a field which is new to them and in which they have not hitherto shown conspicuous ability.

Our Illustrations.

CITY OF SHEFFIELD, HEELEY PUBLIC BATHS. Arthur Nunweek, Architect.

GRAUMAN THEATRE, HOLLYWOOD, CALIFORNIA.
Meyer and Holler, Architects.

We give illustrations of this very interesting and singular building from the "Architectural Forum" of New York. It would be most interesting to know what led the architect to adopt an Egyptian *motif* for a building on Californian soil. But, whatever those reasons were, the scheme is carried out with much skill and ingenuity.

Notes and Comments.

"That Blessed Word 'Mesopotamia.'"

The total cost of a residence for Sir Percy Scott at Baghdad up to March, 1922, was £167,334. As we are given to understand that we are only to be in Mesopotamia for a short time, this may be taken as being the cost of temporary quarters for the High Commissioner, the moderation of the demands made on the British taxpayer being accounted for by the fact that the building work in question is one of additions to an old building. We may from these figures dimly surmise what the cost of a new building for permanent occupation in or near the city of Baghdad would be likely to be! It may be that our officials there are deep in the study of "The Arabian Nights' Entertainments" and base their schemes on the models suggested by that famous work. This is, we believe, the brightest gem in the public accounts; but there are many other smaller ones. Cottages have been built for ex-Service men in Ireland at £800 each, which are sometimes let with difficulty for 4s. a week. Large stocks of building materials have been sold by the Ministry of Health below cost price, while materials costing £118,256, for which no satisfactory offers were received, have been handed over to the Disposals and Liquidations Board. It is well to understand that if individuals are short of money, the Government is not similarly harassed.

Housing.

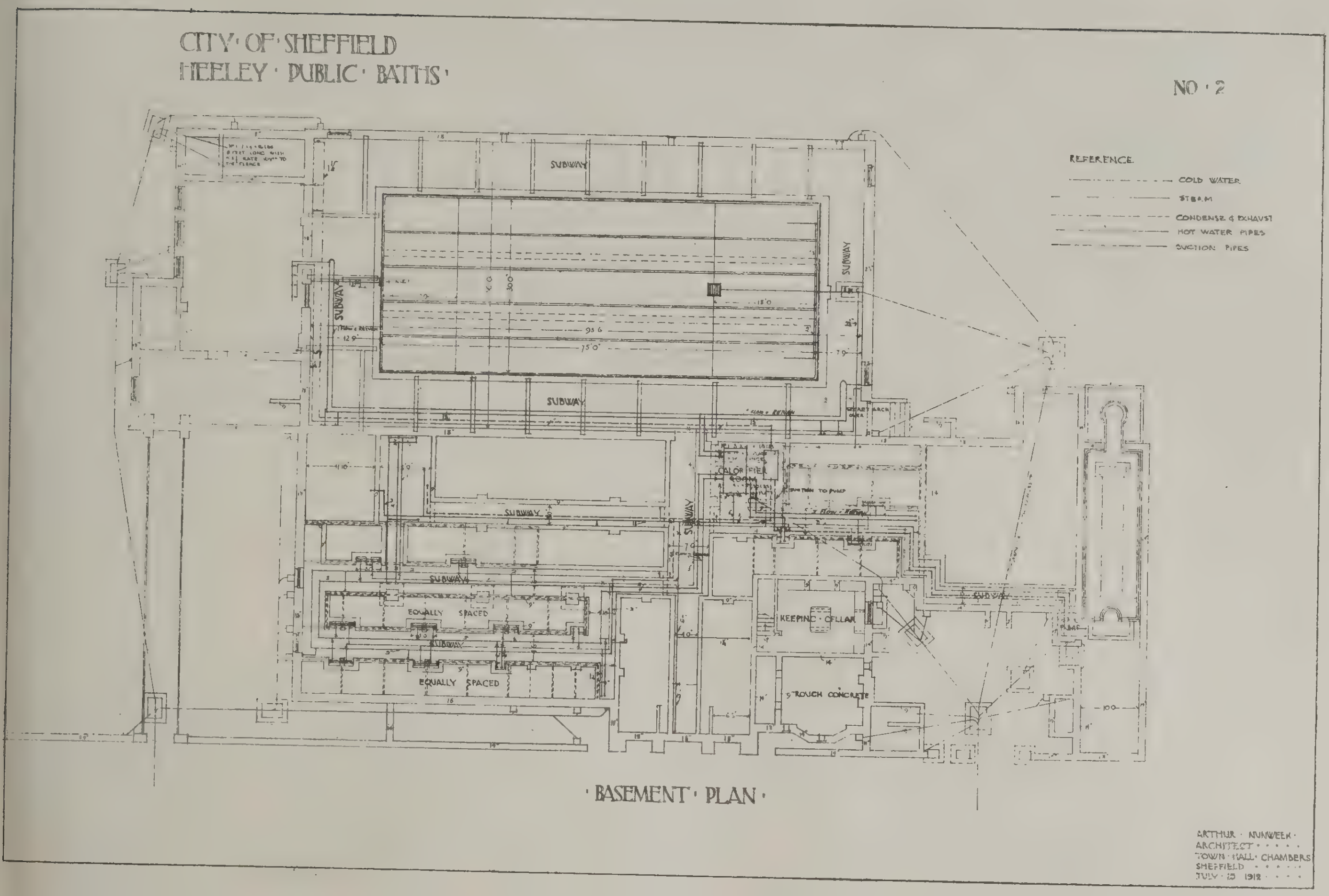
We can see nothing in the Government's housing policy which serves to do anything but promote deep depression. We can quite understand that municipal councils where Labour is strongly represented will welcome the thought that they can increase the amount of the income tax by a dole of 2s. 6d. a week to every occupier of a house for a period of 20 years, but we can see nothing in the proposal which will induce any private speculator to build for the working classes. The Rent Restrictions Act is apparently to remain until 1925, unless the Labour Party compel other parties to retain it permanently: for all parties seem anxious to throw sops to Labour. It seems to us to matter very little whether Dr. Addison, Sir Alfred Mond or Mr. Neville Chamberlain is at the Ministry of Health, for their schemes are all turned out of the same mould with a little variation to induce the unwary to accept them as the one and only revealed truth. Meanwhile the private speculator of the past will perhaps turn his attention to opportunities open to him of making money in American chewing-gum, brandy-balls or other sweetmeats, or may try his fortune in gambles on the Stock Exchange in distant lands where Socialism is not the creed of every party. Possibly in the end we, like Italy, may produce a party of Fascisti, in which case adherents to the new political section may be readily obtained.

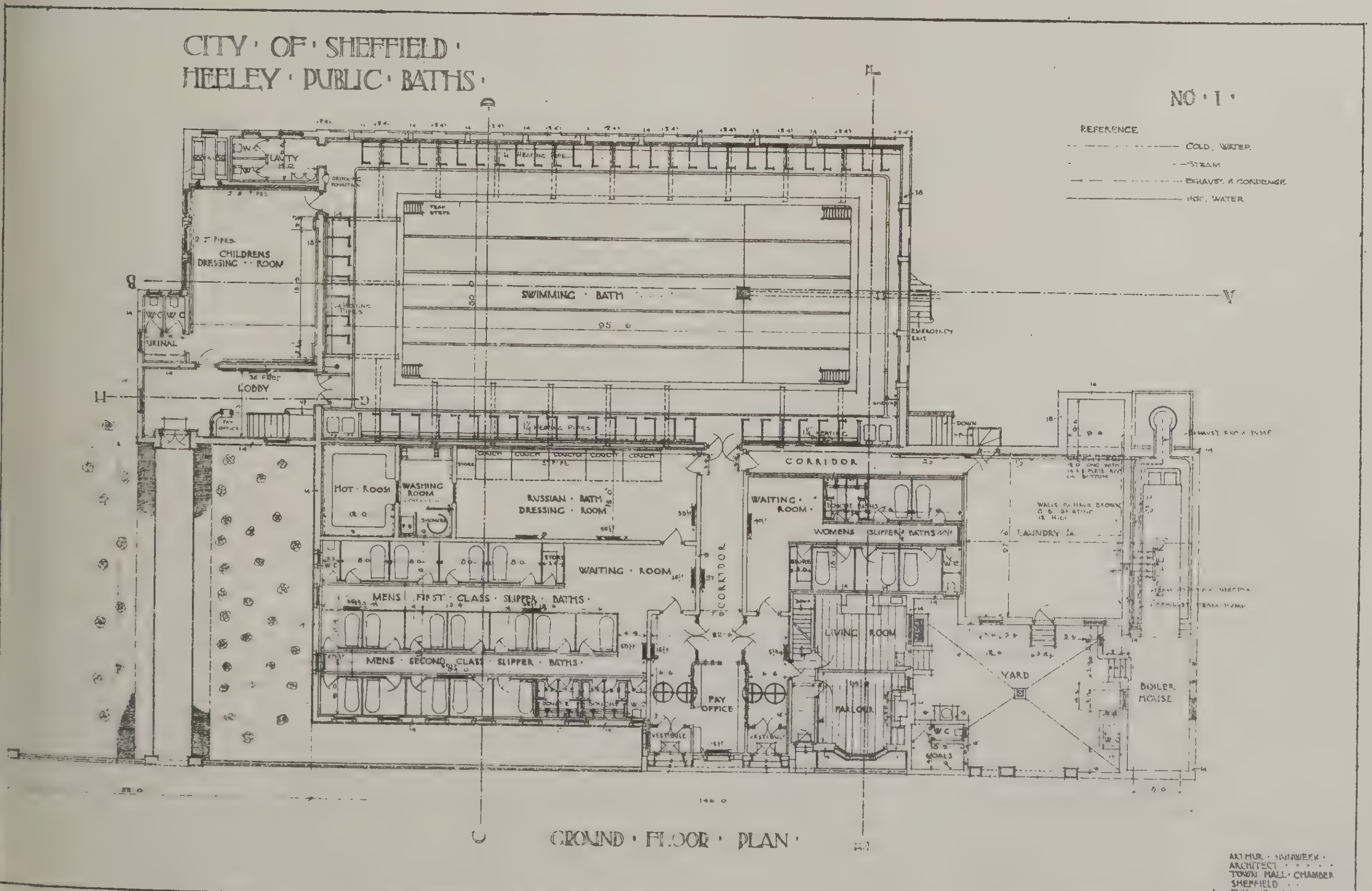
What is Profiteering?

The references to profiteering in the Press raise the question of the correct meaning and definition of the term. We may assume that certain necessary natural products of the soil or of a locality only exist in certain defined localities, and if any body of men have acquired an absolute command of such resources they are in a position to hold the whole community up to ransom. The owners of coalfields, if their ownership is extensive enough, may be in this position, and could obviously render manufacturing enterprise dependent on coal impossible if they used their opportunities to the full. The owners of brickfields are not in this position, unless thay have succeeded in controlling all brick-making earths, which we do not believe is the case. Their power to charge exorbitant prices will depend on the enterprise of those who are in a position to put capital and enterprise into opening up fresh fields. Profiteering in corn has frequently been known in the world's history, but is due to the action of middlemen rather than that of farmers. But most building materials do not involve the exclusive control or monopoly of materials of which they are composed, and if manufacturers are able to obtain high profits from them, the fact is due to ineffective competition, and the remedy is more rivalry and enterprise. We expect an analysis would disclose the fact that many of the high prices complained of are due to ineffective and slack management rather than to profiteering, and to the somewhat natural desire of men to make a good profit on a small turnover rather than a bigger income out of smaller profits on a larger turnover. The difficulty is, however, a very complicated one; for if consumers were to combine to obtain materials more cheaply, they would *ipso facto* become producers and sellers, and their standpoint as to what constituted reasonable profits would be radically altered. But though it seems to be generally admitted that the price of materials in the building trades is too high, it is exceedingly difficult, if not impossible, to point out any remedy other than the question of the law of demand and supply, which often takes long periods of time to effect a result.

Charing Cross Bridge.

The London Society have done well in collecting together a large number of plans and models of the various proposals





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CITY OF SHEFFIELD. HEELEY PUBLIC BATHS.

ARTHUR NUNWEEK, Architect

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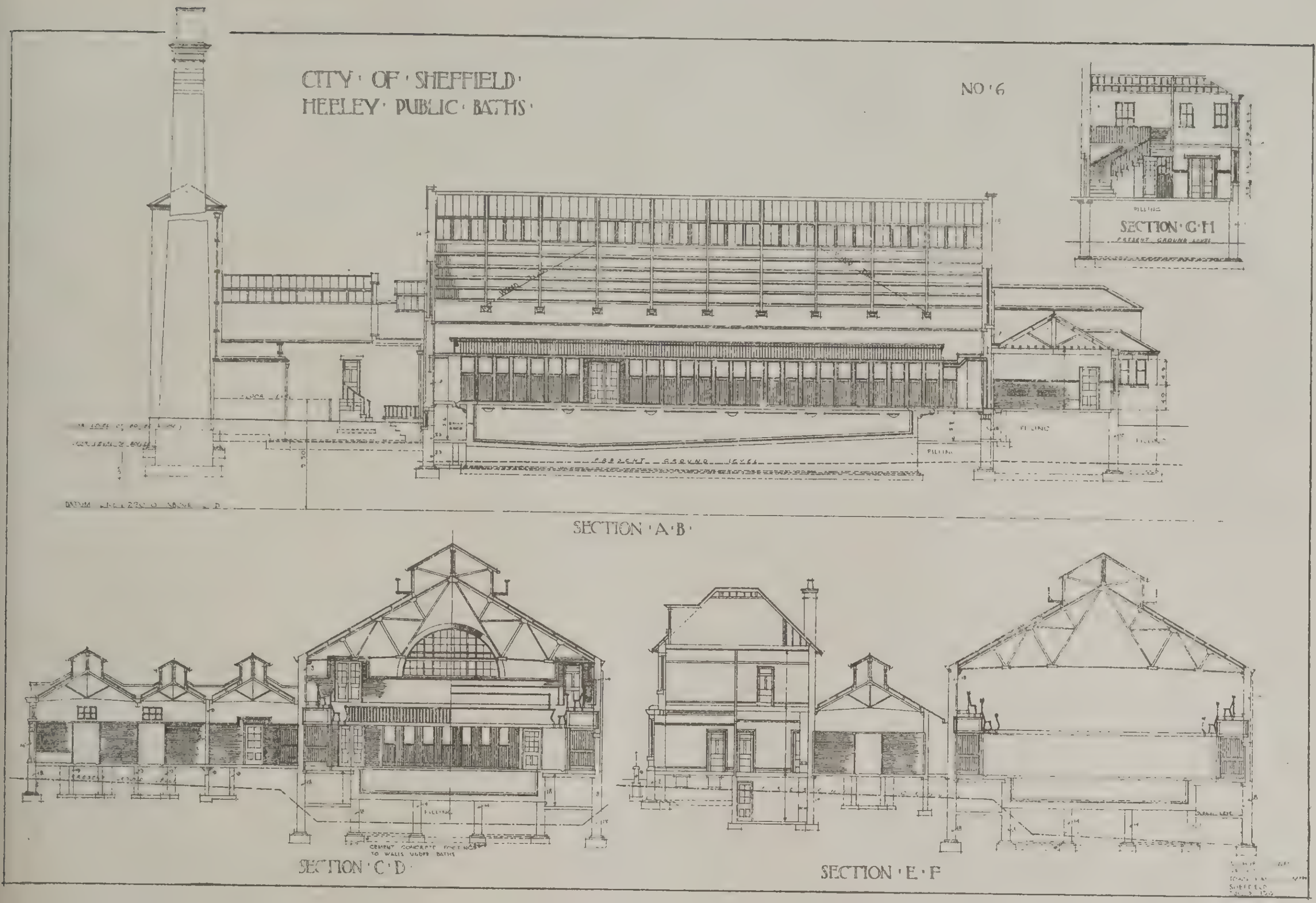

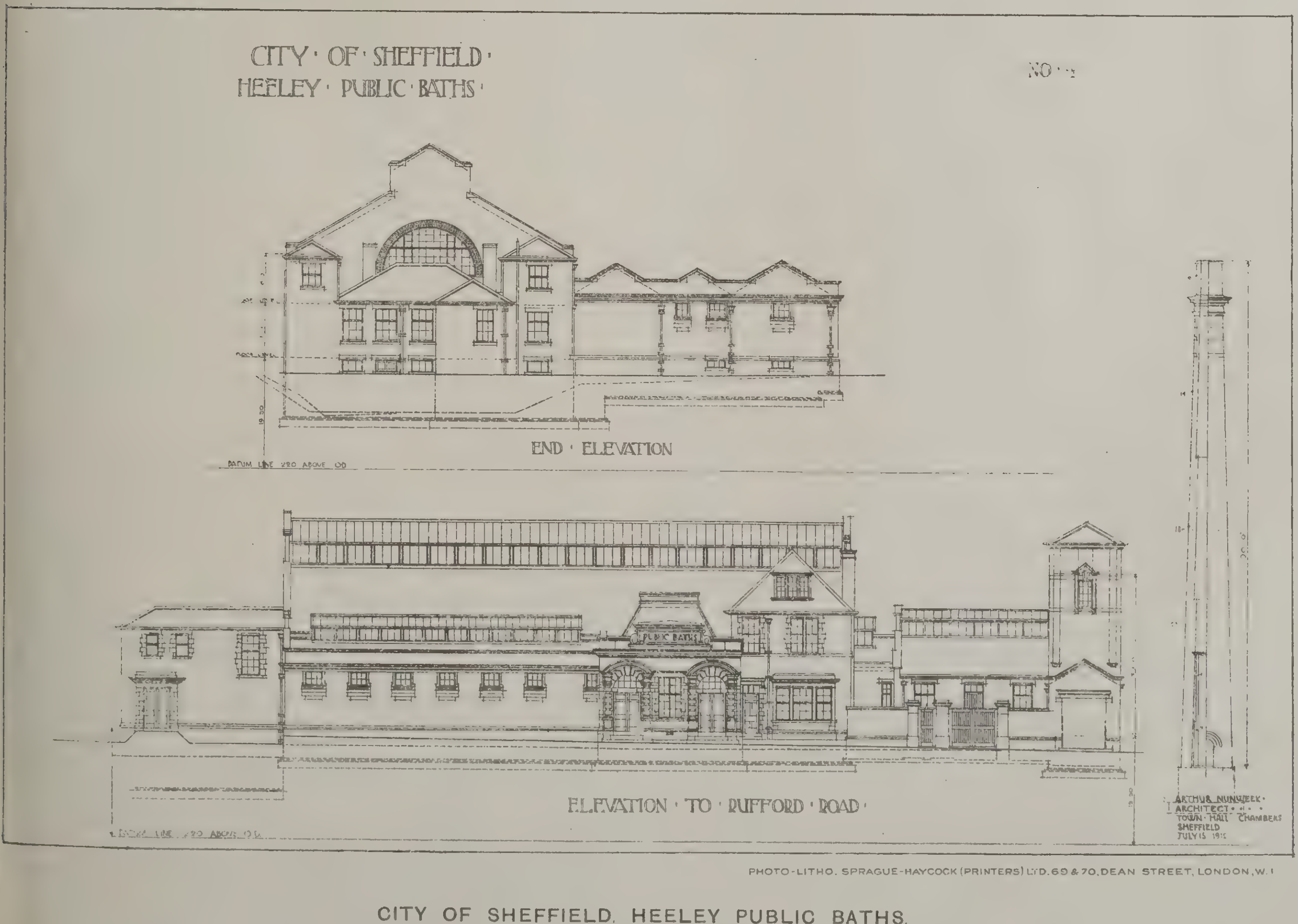

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CITY OF SHEFFIELD. HEELEY PUBLIC BATHS.

ARTHUR NUNWEEK, Architect.

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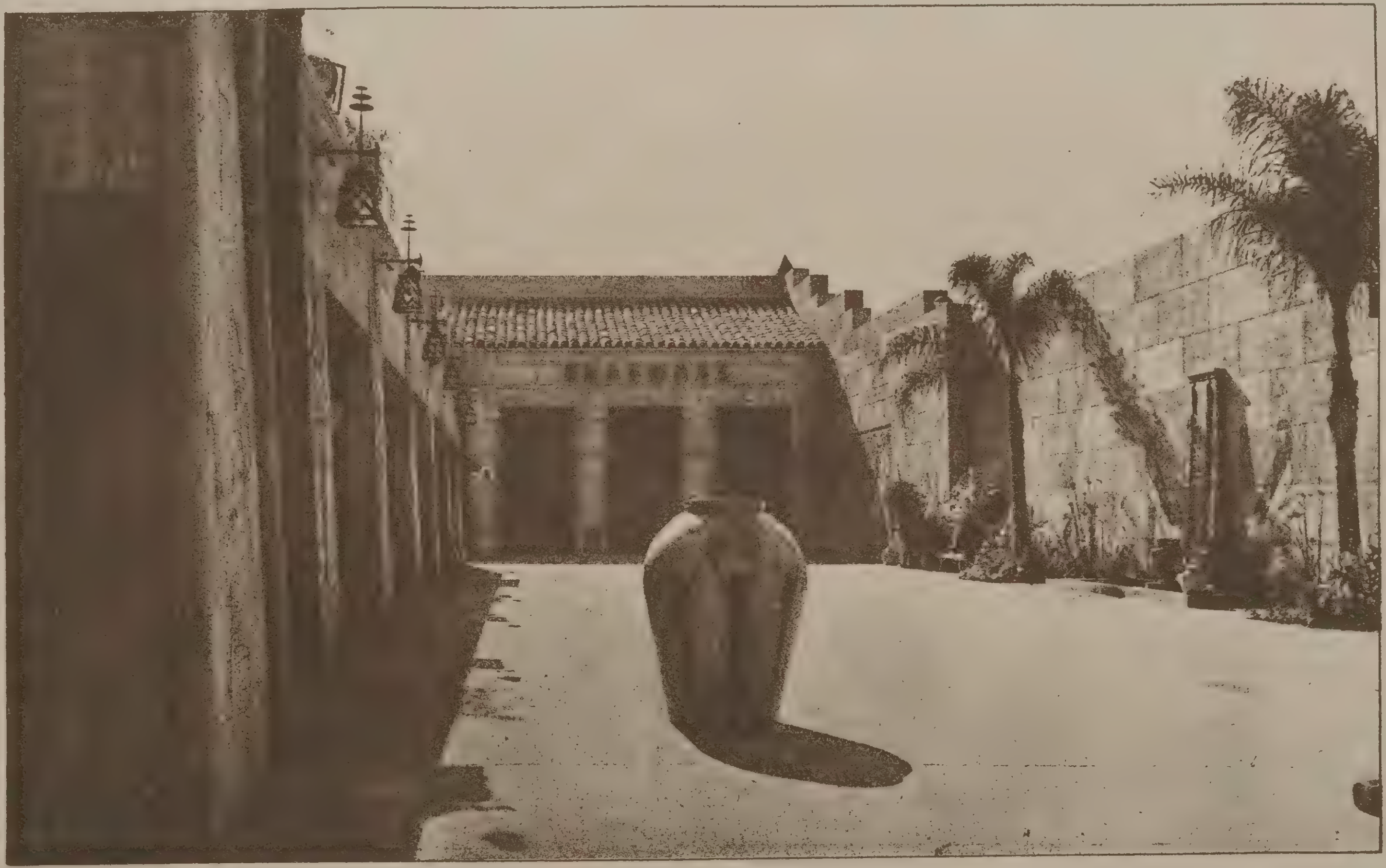
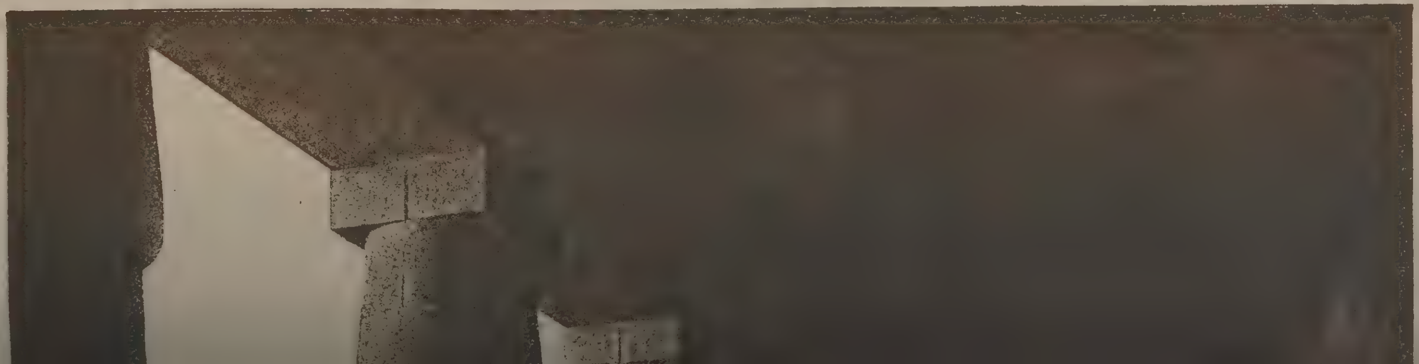
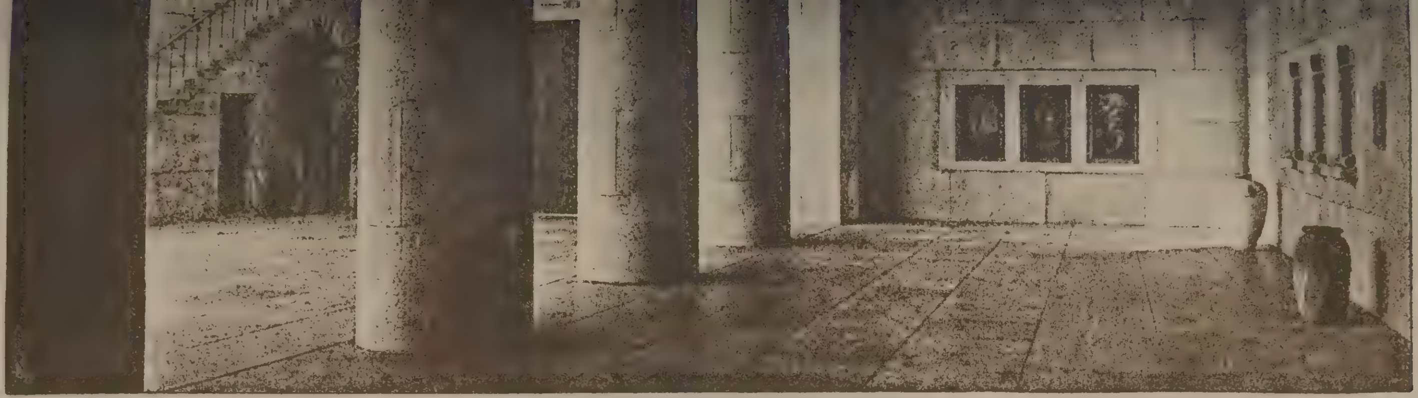
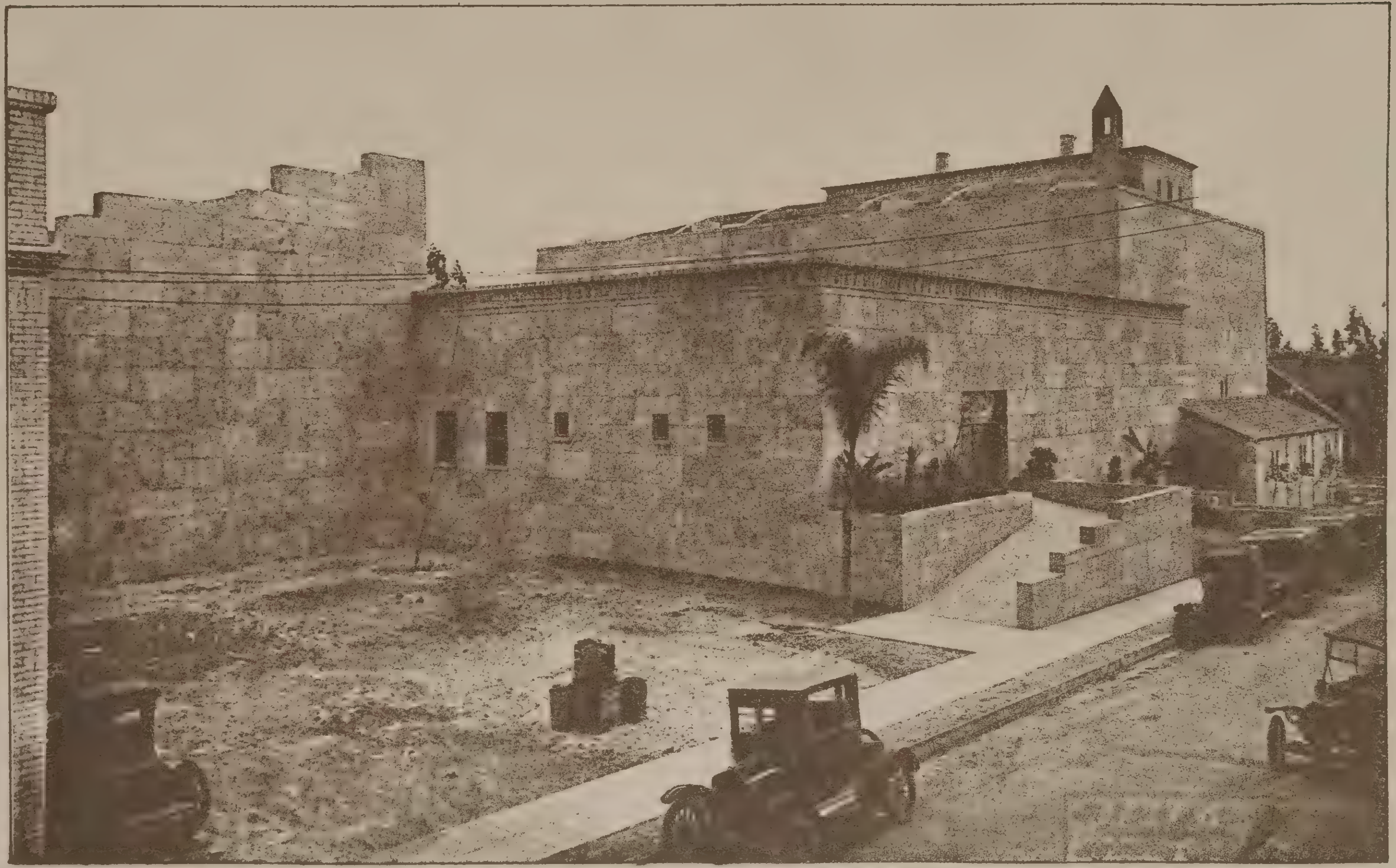


APPROACH TO THEATRE, SHOWING FORECOURT AND SHOPS.





ENTRANCE PORTICO.



REAR VIEW.

FROM THE ARCHITECTURAL FORUM.

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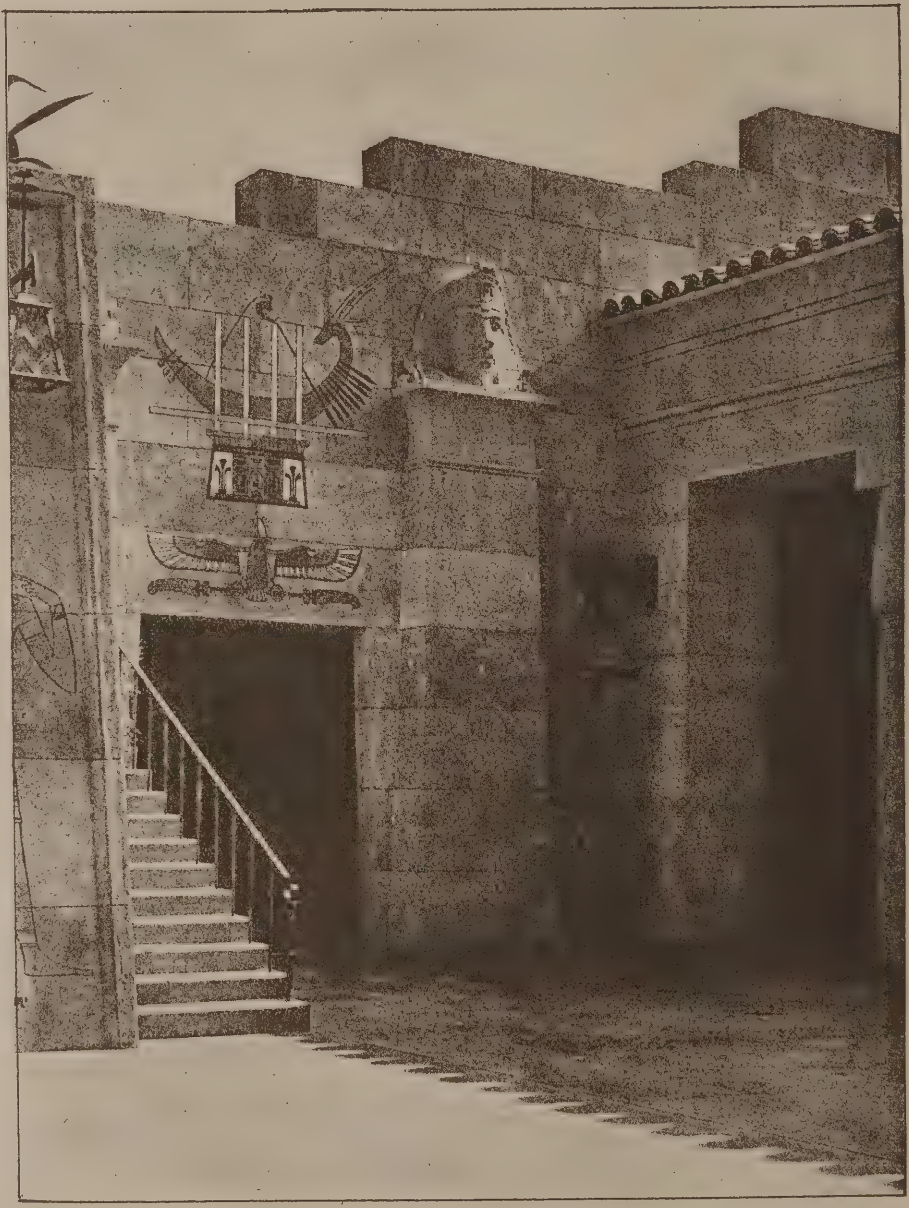

DETAIL OF FORECOURT AND SHOPS.

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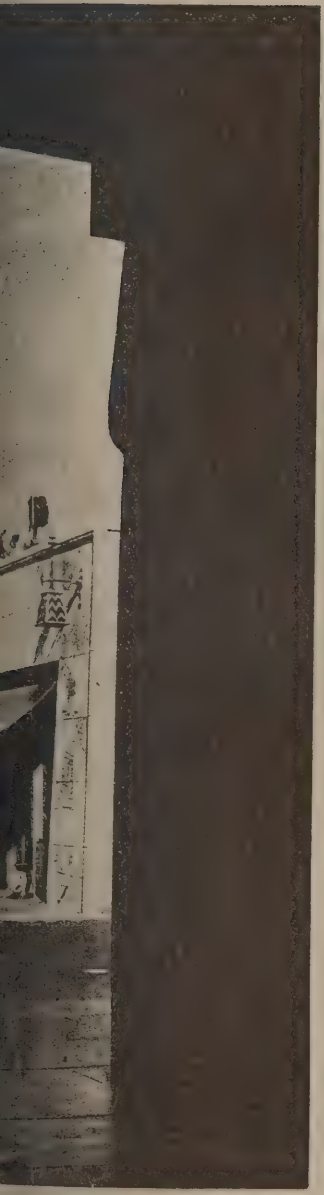
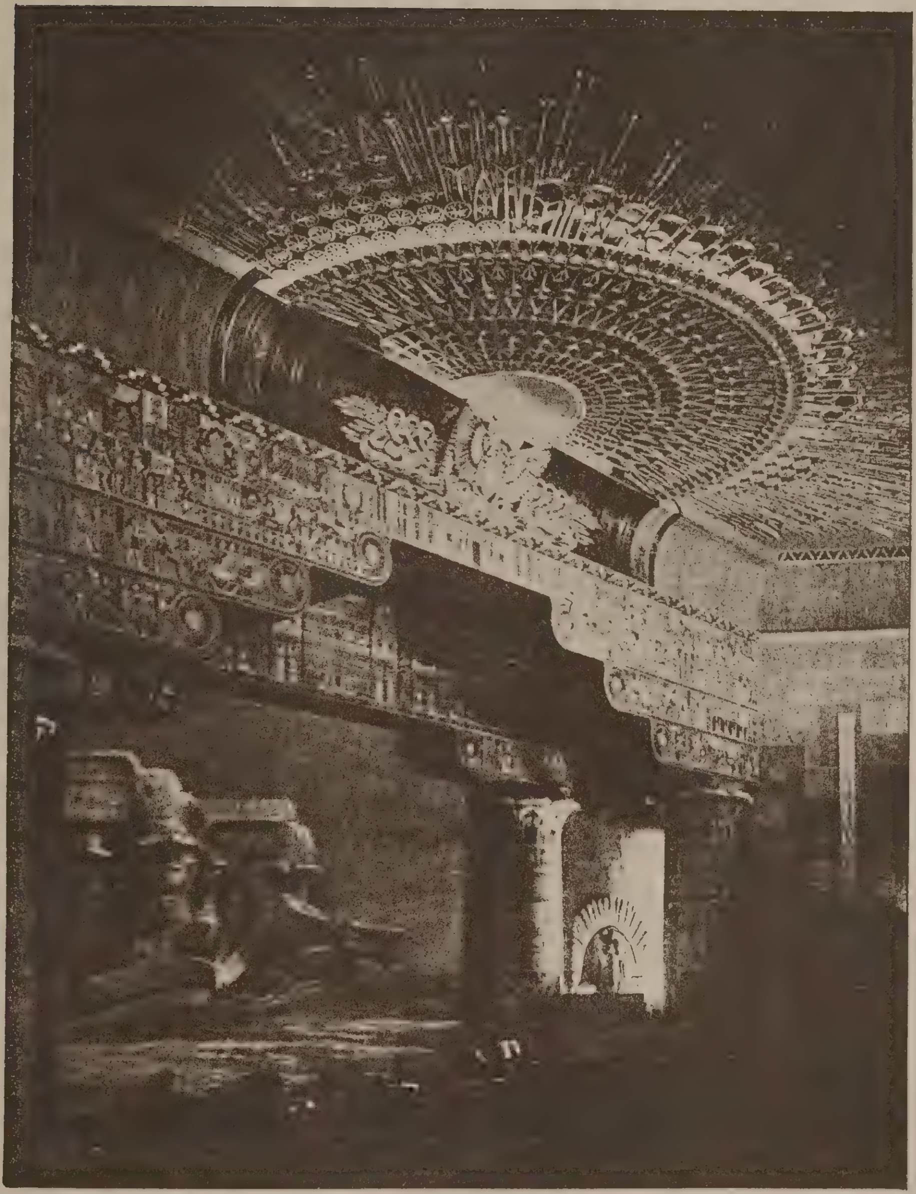


OOKING THROUGH PORTICO.



PROSCENIUM AND ORGAN GRILLE.

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that have been made on the subject of Charing Cross Bridge, and the exhibition at the Old County Hall has attracted widespread public interest. The London Society may be said to have won its spurs by its successful organisation of opposition to the South Eastern Railway Company's proposals, the adoption of which would have stereotyped the *status quo* for many years. It would require an exhaustive analysis and much discussion of facts to pronounce any considered opinion as to the merits of the rival schemes shown or the root problem of the greater merits of a "high" or "low" scheme. What is, however, quite clear is that one of the greatest of London improvements can be made by the construction of a new bridge, and that it is quite unnecessary to have a railway bridge at this point, and that the removal of both the Charing Cross and Cannon Street terminal points to the southern side of the river should be an object to be effected. We may have to wait some time before the great financial problems involved can be dealt with, but the point to be made is that nothing shall be built which would stand in the way of the adoption of a comprehensive scheme. The grouping of the Southern Railways should materially simplify the whole problem.

A Free British Museum.

Most people will support the agitation against the proposed fees for admission to the British Museum on certain days in order to effect a small economy. The Museum, which is now entirely free, seldom attracts a great number of people, and we may feel sure than when the public is made to pay an admission fee far fewer people will visit it. Assuming that in the interests of education and study it is desirable that people should be attracted to the Museum, it is surely unwise to put it on a par with a cinema as far as cost is concerned. It may be said that some free days will be retained, but the public as a rule does not trouble to find out what these days may be. Many more people would visit the National Gallery for a short time were they not uncertain what are free days and what are not, and it seems a pity for the sake of a very trifling economy to charge for admission to the National Gallery or the British Museum. We gather that a clause has been introduced in an omnibus Bill which is likely to be overlooked, and which is all that is required to legalise this most unwelcome change of policy.

Bricks.

We have found that a great difficulty exists in obtaining bricks in many parts of the country, and there is even a shortage of Flettons, orders for which have to be taken in rotation. Many brickmakers do not begin to burn their season's facing bricks till May, and at the present time much work has been brought to a standstill. It would help many of our readers if correspondents who know of bricks which are now available would send us particulars of any such stocks, and we should like to be enlightened as to whether it is not feasible for manufacturers to lay down bigger stocks and to commence to burn earlier in the year.

New Books.

"Reinforced Concrete." By R. J. Harrington Hudson. London: Chapman & Hall, Ltd., 11 Henrietta Street, W.C.2. Price 16s. net.

The object of this volume is to give a practical handbook suitable for use in the design and construction of reinforced concrete, and it is intended for students, engineers, architects, and others actually engaged in the application of this material.

A Foreword is given which has been written by Mr. E. Fiander Etchells, and in this Mr. Etchells describes the book as "one of the milestones on the high road of progress." A recommendation of this nature from such a distinguished reinforced concrete engineer should be an inducement to others to study the matter presented with considerable care.

The volume is divided into three parts—viz., (1) materials and construction, (2) design, and (3) monolithic design. The first part deals with the raw materials used for and the making and placing of concrete, together with the reinforcement and forms, and the subjects treated are clearly explained in a practical manner.

One of the most interesting items in this part is that dealing with the removal of formwork, wherein the author puts forward a method for the determination of the time required before removal which is based on the strength ordinarily developed by the concrete when the temperature is normal—*i.e.* 60° F. A chart is given which illustrates curves showing the increase in strength with the age of concrete at various mean temperatures ranging from 30° F. to 90° F.; and if the methods explained are carefully applied, they will eliminate the guesswork or rule-of-thumb procedure that is frequently adopted in striking the formwork.

The second part, devoted to design, is very clearly written, and the theory is explained in a simple manner which will enable the student to follow the reasoning without difficulty. Tables and diagrams of a useful character are given wherever necessary, and the author has apparently taken much care to make these complete.

The most interesting section of the book, however, is the third part, which deals with monolithic design. It has been the custom in the past for many engineers to design reinforced concrete structures without regard to the rigidity of the connections between the various members, and the secondary stresses have been entirely ignored. This practice has to some extent been justified owing to the lack of definite information as to the exact nature and value of these secondary stresses, and the complicated calculations that must be made to determine the requirements that must be covered.

The author points out, however, that the stresses due to bending moments on the pillars of a reinforced concrete structure may sometimes exceed those due to vertical loading, and it is therefore impossible to ignore the secondary stresses if the design is to be a satisfactory one. The bending moment at every part of the beam and every part of its supporting pillars is dealt with by the Theorem of Three Moments, and the author gives some appendices at the end of the book wherein the investigations by means of equations of theorem of three moments are explained, and the various equations given.

Owing to the difficult mathematical analysis that is involved in an investigation of the various stresses, several charts are given as time-saving devices which will enable the designer to arrive at the bending moments on pillars for any particular case which may arise in ordinary practice.

The book can be thoroughly recommended to all engineers and architects, as it is a valuable addition to the works on reinforced concrete, and it deals with an important phase of design which has hitherto received little attention from writers of articles on reinforced concrete work.

A. L.

"Cements and Artificial Stones." By the late John Watson, F.G.S. Cambridge: W. Heffer & Sons, Ltd. Price 6s.

More than four years have elapsed since the death of Mr. Watson, but the recent appearance of this little handbook, edited by Dr. R. H. Rastall, may be welcomed with some degree of heartiness. For though the work purports to be merely "a descriptive catalogue of the specimens in the Sedgwick Museum, Cambridge," yet it is, in effect, a treatise upon the properties of cements, concrete and artificial stones, so far as the specimens permit of a dissertation.

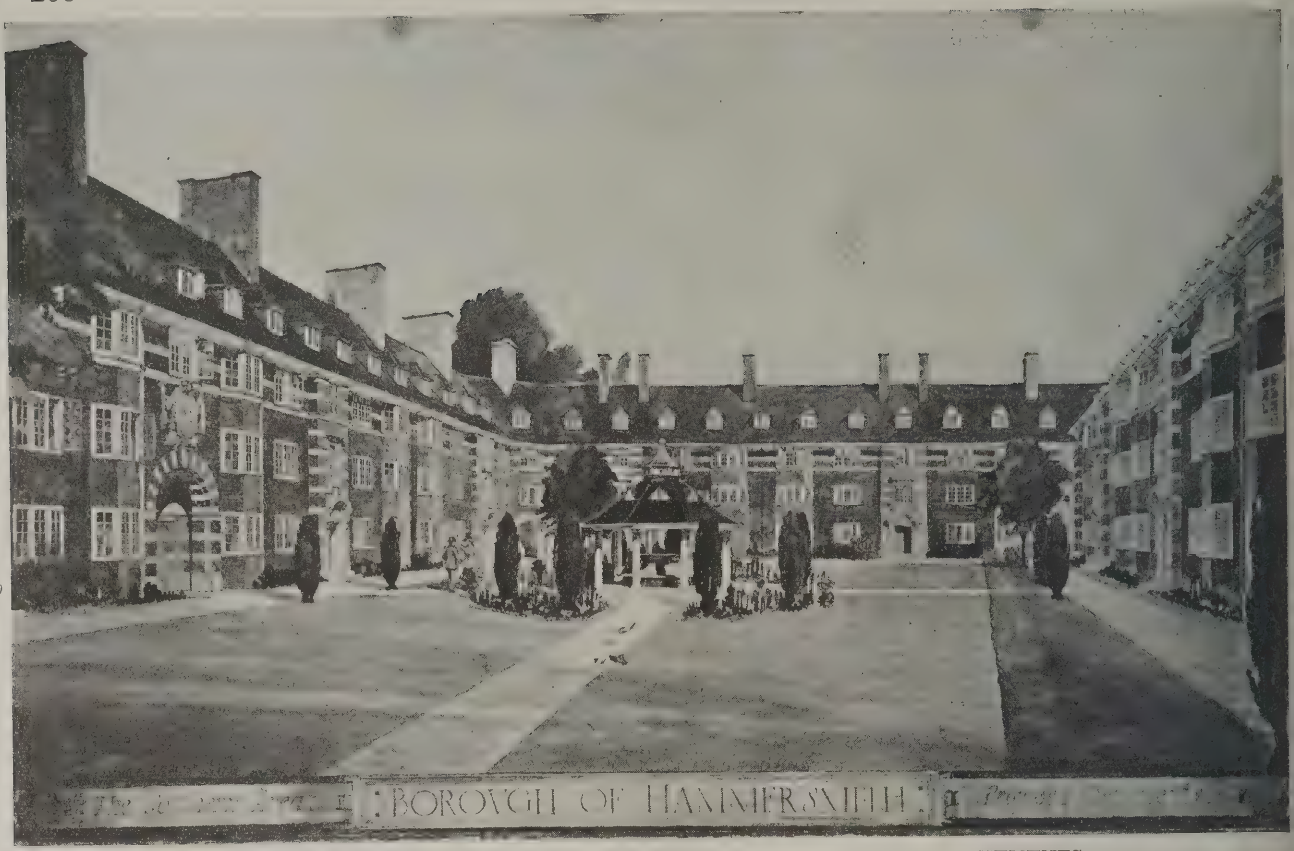
It is, however, unfortunate that the author should so lightly disregard the differentiation between cement, concrete and artificial stone; these are not interchangeable terms, and it is well known that the constituents of concrete consist of cement, sand, and what is called "aggregate," so that the test briquettes detailed on pages 51 and 52 are all merely cement, though presumably the first series is "neat cement." To this extent, remarks on page 54 well need emendation in the second and last paragraphs. There is less objection to regarding certain artificial stones as concrete, though a term which possesses an acquired meaning is best reserved for such signification. Slight errors, such as Joseph Moier (for Monier), and Shepherds Bush, *near* (*sic*) London, may be mentioned for the benefit of a new edition; but as regards the index, this needs revision to an intimate extent; in places incomplete, in others excessive, in others comical—as, for example,

Wood, Charles
" pavement

is deplorably what an index should not be.

Some remarks on pages 114-116 concerning the acoustic properties of certain plasters are of topical interest, though the prevention of echo and reverberation on scientific lines and with scientific accuracy is still awaiting materialisation.

Despite the subject of the book being what some might regard as dry-as-dust, the author has to be congratulated upon the production of a work of real merit and of live interest.



HAMMERSMITH HOUSING SCHEME (SOUTHERN AREA), PROPOSED TENEMENTS.
The late Henry T. Hare and Bertram Lisle, Architects.

Royal Institute of British Architects.

The tenth General Meeting (Ordinary) of the session was held at 9 Conduit Street, W., on Monday last, the 19th inst., Mr. H. D. Searles-Wood, vice-president, in the chair.

The death was announced of the Rt. Hon. the Earl of Plymouth, Hon. Fellow, and also that of Sir J. J. Shannon, R.A., Hon. Associate. The portraits of Sir William Emerson and Sir Reginald Blomfield in the Institute's collection were both executed by Sir J. J. Shannon.

The Rev. P. H. Ditchfield, M.A., F.S.A., was formally admitted as Hon. Associate of the Royal Institute.

Mr. G. E. S. Streatfeild, O.B.E., D.S.O. [*F.*], then read a paper on "The Hammersmith Housing Scheme." There is a personal interest as regards the Hammersmith Housing Scheme which might specially appeal to the Institute, for it was one of the last works undertaken by Mr. Henry Hare, one of the Past Presidents. In January, 1919, the Hammersmith Borough Council appointed a special committee to report upon and carry out schemes sanctioned by the Council and H.M. Government relating to the provision of houses for the working classes, and also to deal with schemes involving the demolition and reconstruction of certain areas in the borough. Schemes were at once submitted to H.M. Government dealing with: (*a*) The construction of new houses on the Wormholt Estate, and (*b*) the reconstruction of an area generally known as the Creek area, in the southern part of the borough.

The Borough Council then went to Mr. Hare, who was President of the Institute at that time, and asked him to undertake the work and to appoint three other architects to act with him as a panel in conjunction with Mr. Hampton Clucas, the borough surveyor. He therefore nominated Mr. Ernest Franck, Mr. Matthew Dawson and the author of the paper to act in this capacity. Mr. Hare lived to see the various contracts for building new houses on the Wormholt Park Estate started, and when he died, in January, 1921, the Borough Council appointed Mr. Bertram Lisle, whom he had taken into partnership, to carry on his work.

The Hammersmith Housing Scheme, as originally proposed, was divided into two distinct areas, the northern scheme for new houses, the southern scheme for clearing and replanning insanitary areas near the Creek, as mentioned above, and also a temporary housing scheme to meet the immediate urgent demand. This scheme consisted of converting a munition-filling factory of timber sheds into 41 hutments at a cost of £18,000, the accommodation varying from two to four bedrooms. Owing to the condition in the borough they are still being occupied.

One of the main arteries coming into London from the west passes through King Street and Hammersmith Broadway. At one part King Street is only 45 feet wide, and as trams also run down the street, serious congestion is caused. In replanning this insanitary southern area one of the important advantage to be gained was to construct a by-pass road, so that throug traffic could be diverted from this part of King Street. There i also another serious defect in the communications of the borough in that there is no good road from north to south joining th Uxbridge Road to King Street.

In dealing with the southern area it was impossible to avoi considering the treatment of the river front. The foreshor round Hammersmith bend is very picturesque, but, as in s many cases, the old riverside cottages have become insanitary and the portion between the creek and Waterloo Road ha largely become a dilapidated area, containing also variou derelict factories. The panel of architects therefore felt that while preserving any buildings of special interest, such as Ken House, Kelmscott House and River Court House, they ought t consider in what way an embankment could be constructed should districts adjoining Hammersmith ever decide to forn embankments along their river fronts, as Chiswick is doing an Fulham has already done. It was not suggested that thi embankment should be used for main traffic, but rather as promenade for the benefit of the inhabitants of Hammersmith This embankment would gain an average width of 50 feet i addition to the present narrow roads, and would allow the peopl to enjoy the view of the river. Some of the old features, suc as the fine old elm trees and the brick bastions, could be preserve on the front.

The creek, which was the outlet of the Stamford Brook int the river, could form a natural feature of great charm, provided weir were built across it to hold up sufficient water at low tide t prevent it from being, as at present, a mere muddy ditch. I is suggested to make the mouth of the creek into a boating centr with club houses and boat-building yards. The open promenad is particularly necessary in this part of the borough, as it has a present only one open space or square. In developing the area t be cleared, it was proposed to build tenement houses round larg quadrangles with grass in the centre of the courts. It was als proposed to put a-building in the centre of the quadrangle, wit small lock-up divisions in which perambulators could be kep as it is impossible to expect women to drag their perambulato up two flights of stairs. It was also proposed to form in th roof of each block a common laundry, which would be availab for the use of the various tenants. The accommodation gene ally provided is a living room, three bedrooms, a kitche scullery, etc. Although for the present the development of th area is in abeyance, it is hoped before long to carry out a portio of this scheme.

The Wormholt Park Estate lies south of the Central Londo

Railway Extension and of the London County Council Old Oak Estate; adjoining it on the east are the grounds of the White City. This altogether covers an area of 125 acres, which was bought at an average price of about £593 per acre from the Ecclesiastical Commissioners.

The general lay-out of this land was influenced to a considerable extent by the possible future development of the White City as a housing estate, which is sure to come some day. It was suggested, when this lay-out was decided upon, that there should be a station in the centre of the north side of the estate, and so the roads lead up to a central square in which would be placed certain public buildings and a number of shops to form the approach from the station to the estate and the termination of the north-and-south road.

The whole of the estate is traversed from east to west by the new Great Western Avenue, and a width of 100 feet is reserved for this road. Although at present it is only being made 24 feet wide, it will ultimately become one of the main thoroughfares into London and be connected up to Westbourne Grove and Marylebone Road. In laying out the estate it was decided to avoid corner blocks, and to keep, as far as possible, the corners of the roads open and to provide ample open spaces. For this purpose certain blocks of the houses are set back to form open squares, and playgrounds for the children are arranged behind the houses at the end of the gardens. In this way access is given to the back door of middle houses, and wherever this has not been possible a common passage is formed through the block of houses so that every house has a separate way to the back door. Thus all back roads and narrow alleys behind the houses are eliminated.

Between the houses and the streets it was intended to keep all the forecourts open, on the plan so common in America, which gives a sense of great space to any street as the width is only bounded by the walls of the houses. Unfortunately the Englishman is very conservative, and the tenants have never ceased to agitate to have these forecourts enclosed. The Borough Council has therefore agreed to plant a privet hedge along the edge of the pavement, but this is not to be allowed to grow more than two feet in height. This will give a certain privacy to the forecourts and prevent strangers walking across them.

As to materials. Against Mr. Hare's strongly expressed opinion, the panel of architects were compelled by the Ministry of Health, for the sake of economy, to adopt a partially concrete-block construction in the first contract for 68 houses. Experiment has amply justified Mr. Hare's opinion. The remainder of the contracts have all had 11-inch cavity external walls and main internal walls of brick only. The difficulty of obtaining tiles was overcome by importing pantiles from Belgium, which were brought up to Hammersmith in barges.

As to other points of construction. The upper windows are all hung to protecting hinges, which make the outside easy to clean, and in all bedrooms one small pane in a metal casement is hung to give ventilation.

The Hammersmith Borough Council determined to maintain a high standard as originally proposed in the Tudor Walters report, and insisted that all the houses should be provided with hot water, lavatory basins and bathrooms separate from the water closets, and in the later houses to have a height of 8 feet 6 inches clear to all rooms. Two contracts were carried out by Messrs. Alban Richards & Co. for a total of 198 houses at an estimate of £179,350 subject to adjustment for rise and fall. Messrs. J. Macmanus, Ltd., built 308 houses on a basic price-contract amounting to £295,372 10s., which was also subject to adjustment. Thirty-nine houses and 4 shops with flats over them are now being built at a cost of about £21,500. Therefore the total cost of building 590 houses, 4 shops and 4 flats amounts to about £590,000, an average of about £1,000 per house. The cost of the roads and sewers will be carried out at an estimated cost of £162,460. The rents have been fixed for "A.3" houses at 14s. a week, for "B.3" houses an average of 16s., and for "B.4" an average of 17s. the tenant paying all rates. It was decided that if purchasers came forward up to one-third of the total number of houses should be sold to people living in the Borough of Hammersmith, and the Ministry agreed to fixing the price at about two-thirds of the actual cost of building. They would be sold on a 99-years lease, subject to £5 per year ground rent. The tenants have formed themselves into an association, with a committee which brings before the estate manager and the Council matters which tend to the comfort and amenities of the estate. The Council has appointed an estate manager, who is in constant touch with this committee, but also collects all the rents, and is, therefore, in personal contact with all the tenants. The Council felt it important for the sake of health and cleanliness that all the houses should be lighted by electricity; at the same time it was felt that gas was very essential for cooking purposes. The Ministry of Health considered that the supply of both gas and electricity was unnecessary, but after much negotiation it was agreed that in consideration of the Council accepting 13½ per cent. instead of 15 per cent. for repairs, the cost of both supplies should rank for subsidy. That portion of the estate already developed as regards the approximate number of houses to the acre is as follows:—

Taking the gross area, including roads and open spaces, an average of 12 houses to the acre. Taking the net area, excluding roads, etc., an average of 16 houses to the acre is obtained.

The frontages facing Western Avenue, Old Oak Road, and Steventon Road are being reserved for houses of a larger type, and are available for private buildings and for shops in certain selected localities.

Sites for public buildings and churches have been reserved at axial points, where they will close the end of a vista. An open-air swimming bath is under construction by the Borough Engineer. In spite of all that has been done, the condition of the housing is still causing much anxiety to the Mayor and the Borough Council. There are in Hammersmith 1,928 families still living in one room only, 5,615 families living in two rooms only, and over 8,000 families living in three rooms.

Discussion.

Mr. W. Percy Waters (chairman of the Hammersmith Housing Committee), in proposing a vote of thanks, said Mr. Streatfeild had not only given an excellent paper, but also an excellent advertisement for the Borough Council. The major portion of the work had been carried out by councillors of all political thought; every member of the committee had worked together and with the very greatest interest to bring this scheme about. The committee were practical men, by which he meant tradesmen, and they hauled the architects over the coals at every meeting. He would like to thank the Ministry of Health for the manner in which the Council's deputations had been received. The position of Ministry officials was a difficult one, because each new Minister gives out new instructions, which sometimes result in the officials having to argue against what they know to be right. In Hammersmith there was now a Borough Council which was going to proceed on housing lines that were purely economic. That course had been imposed on them. Personally he was hopeful that the splendid plans drawn up by the panel of architects would be proved to be an economical proposition. The offer by the Ministry of £6 a house would be of no use at all. Perhaps they might be able to let the land already purchased to private builders; but there will be a hard-and-fast rule that no plans shall be passed which are not approved by the panel of architects—so that the scheme will remain on a comprehensive plan. The loss of Mr. Henry T. Hare was a very severe one and was greatly felt by the Housing Committee.

Mr. Raymond Unwin, F.R.I.B.A., in seconding the vote of thanks, spoke of the great example of the architects' contribution to the housing question. He hoped it was not true, as Mr. Streatfeild had suggested, that "all architects must be so sick of the whole housing question that a paper on it could not be of any real interest to them." There were undoubtedly many difficulties in the way, not the least of which being the irritation of those who had to find the money. Many people might be surprised to hear that the prices curve for houses showed a remarkable similarity to the prices curve of most other commodities. There were always difficulties when one party has to pay the bills while another party spends the money. However, he felt confident all these troubles would disappear in a few years. It had been contended that the Ministry's standard was too high; with that view he emphatically disagreed, though he sympathised with those struggling with the financial problem. It must be hard for the latter not to think, when they saw the prices soaring up to £1,060 per house, that something was wrong with the standard. Architects, as technical people, realised that the economical way of solving the problem was to maintain a high standard. There could be no real economy at all in crowding houses together. There might be economies effected as to material and organisation—the latter greater than are generally realised—but not economies as to areas. It should be possible for people in this country to pay economic rents on the present-day prices. Architects must go on studying this problem until they find a solution of it.

Mr. Marshall Hays, J.P. (Mayor of Hammersmith), said he hoped work on the southern portion of their housing scheme would be tackled as soon as possible, and that in the course of it the old riverside houses would be preserved. People in the locality were going to keep a very watchful eye on any destructive work.

Dr. J. P. Howell (Medical Officer of Health for the Borough) remarked that, though their housing problem had been tackled in a vigorous way, much yet remained to be done. The southern area was the oldest part of Hammersmith, and some of the houses were in a state of extreme decay. But there had been no need to obtain demolition orders—the houses entirely disappeared of their own accord, aided by the activity of the neighbours, after they had been compulsorily closed. A large number of the remaining houses were in a serious condition. In one case a tenant was knocking a nail into the wall to hang up a picture when the nail fell on to the floor of the next house, with the result that trouble ensued! Those who said that the children of these slums looked healthy forgot that it was a case of the survival of the fittest—the death rate there was the highest in the Borough.

Mr. Leslie Gordon (Town Clerk of Hammersmith) largely attributed the high prices of building to the existence of rings—for which there was no excuse and which killed every patriotic impulse in the hearts of local authorities. Then came the high price of money—a thing which the Government could not combat, though there was no excuse whatever why the rate should be forced up to 6 per cent. Next was the unfair lowering of output by the operatives. But whereas the financiers and the producers are still getting 100 per cent. more than before, the wages of the working classes are almost back to pre-war level and are scarcely a living wage. In conclusion, Mr. Gordon congratulated the Royal Institute on their serious attention to the design of working-class houses—a subject which heretofore they had been prone to consider beneath them.

Mr. B. Greenall (Ministry of Health), Mr. J. Ernest Franck, F.R.I.B.A. (one of the panel of architects), and Mr. A. O. Collard having spoken, the vote of thanks was passed by acclamation.

Mr. G. E. S. Streatfeild, in his acknowledgment, pleaded that the Ministry of Health should not be so reactionary as to make their proposed grant applicable only to non-parlour houses.

The Following Notes are from the Minutes of the Two Latest Council Meetings.

Registration Bill.—In pursuance of the decision of the Special General Meeting on January 29, it was decided to invite all the bodies which were represented on the Unification and Registration Committees, and any others which may be affected, to consider the draft Registration Bill, to indicate any points in which they think it might be improved or amended, and in due course to appoint representatives to attend a meeting for the discussion of the Bill.

Academic Dress for Members of the R.I.B.A.—The question of the adoption of an Academic dress for members of the R.I.B.A. has been referred to a General Meeting.

London Squares.—A communication is to be sent to the London County Council urging that steps should be taken to ensure the preservation of the London squares.

South Africa.—Mr. E. M. Powers, F.R.I.B.A., was appointed Hon. Secretary for the R.I.B.A. in South Africa in succession to the late Mr. Arthur H. Reid. The Association of Transvaal Architects is to be admitted as an Allied Society of the R.I.B.A. in place of the Transvaal Institute of Architects.

Daywork Charges.—Mr. Max Clarke, F.R.I.B.A., will represent the R.I.B.A. on a Joint Committee of architects, surveyors, and builders to be formed for the purpose of reporting upon the question of charges for daywork with a view to establishing an agreed schedule.

The Incorporation of Architects in Scotland.—The draft bye-laws of the Incorporation of Architects in Scotland were approved under the provisions of Bye-law 78.

The Institute of Cost and Works Accountants.—It was decided to present a petition to the Privy Council in opposition to the petition of the Institute of Cost and Works Accountants for the grant of a Royal Charter.

Annual Exhibition.—An Exhibition of French Architecture will be held in the R.I.B.A. Galleries in the autumn.

Architects' and Surveyors' Approved Society.—A grant of £75 was made to the Approved Society to assist in liquidating the deficit on the Administration Account.

Housing Policy.—The Report of the R.I.B.A. Housing Committee on the National Housing Policy was adopted and ordered to be submitted to His Majesty's Government.

Building Bye-Laws.—The Report of the Building Code Joint Committee was adopted and ordered to be submitted to His Majesty's Government. This Report recommended the periodical revision of bye-laws, the establishment of an Appeal Tribunal, and contained suggestions for a greater uniformity in Local Bye-Laws.

Empire Forestry Association.—Mr. H. D. Searles-Wood, Vice-President, was nominated to serve upon the Governing Council of the Empire Forestry Association as the representative of the R.I.B.A.

Reinstatement.—The following were reinstated as Licentiates:—J. Ross Mills, Ernest Sprankling, E. H. Wigley, A. H. Barnes, C. Procter Sherwin.

Cost of Building Materials.

Mr. George Hicks, president of the National Federation of Building Trades Operatives, issued a statement last Monday on the price of building materials.

In view of the Government's proposals to subsidise houes-building (he states) it is imperative that inquiry should be instituted without delay into the manufacture and distribution of building materials. Already the prospect of State assistance has had the effect of hardening the market, and there is grave danger that public money will be diverted into the channels of trade profits instead of to relieve in the legitimate way the economic burden of housing.

Although some combinations in the building industry are not at present able to control prices as they did previously, their machinery is a potential power and is in existence still, and ready to function in the event, as it is hoped there will be, of largely increased demand.

The detrimental effect of profiteering in the building industry is still evident. The power of controlling prices and regulating output still exists. This applies particularly to builders' supplies, of which the following are typical examples:—Roof tiles, chimney pots, etc., glazed and floor tiles, earthenware pipes, sanitary earthenware, lead pipes, sheet lead, etc., Portland cement, iron castings, wallpaper, glass, wrought iron, etc., wrought-iron tubes, and boilers.

The price of bricks illustrates very well the unsatisfactory character of certain comparisons that are made in respect of wages. Best stock bricks sold in 1914 at £1 16s. per 1,000. In 1921 the price was £5 1s. 6d., an increase of 180 per cent. The current price is £4 2s., representing a drop of 63 per cent., so that the trade still pays 127 per cent. above pre-war costs, while the wages of building craftsmen are not more than 60 per cent., taking the weekly income on full time.

During 1922 the reduction of wages amounted to 18 per cent., while the average drop in the price of materials was 9 per cent. As a matter of fact, the illustration of the case of bricks is a fair and moderate one to select. Cement stands at 134 per cent., roof tiles at 160, baths (brought down considerably by foreign competition) 120, doors 160, and plaster laths 230 per cent. above pre-war costs.

Lord Wolmer has assured Parliament (Mr. Hicks concludes) that the situation is being carefully watched by the Board of Trade and the Ministry of Health. It is necessary that information concerning all the facts, particularly as to the costs, trade schedules, trade penalties, and pooling arrangements, should be made known by means of Parliamentary inquiry.

Forthcoming Events.

Friday, March 23.—Town Planning Institute. Meeting at Institution of Mechanical Engineers, Storey's Gate, S.W. Adjourned discussion on Mr. L. C. Evans's paper entitled "Acquiring and Replanning Congested Areas." 6 p.m.

London Esperanto Club. Meeting at St. Bride's Institute, Ludgate Circus, E.C. Paper by Mr. T. J. Gueritte entitled "Reinforced Concrete." 8 p.m.

Monday, March 26.—Architectural Association. Meeting at 35 Bedford Square, W.C. Paper by Mr. Maurice E. Webb entitled "The Architect in Practice." 8 p.m.

Tuesday, March 27.—Illuminating Engineering Society. Meeting at Royal Society of Arts, Adelphi, W.C. Paper by Mr. P. J. Waldram, F.S.I., and Mr. J. M. Waldram, B.Sc., entitled "Window Design and the Measurement and Predetermination of Daylight Illumination." 8 p.m.

Thursday, March 29.—Edinburgh Architectural Association. Annual General Meeting. President's Valedictory Address.

Bentley Colliery Company have given instructions for the preparation of a scheme to provide 450 additional houses at Scawthorpe, about three miles from Doncaster, and adjoining the Great North Road. They are to be of an improved type, and the lay-out to be on model lines, many of the houses to be semi-detached, with up-to-date conveniences.

The Folkestone Corporation have just accepted the tender of Messrs. D. J. Somerville & Co., Ltd., for £31,450, and Messrs. The Staveley Coal & Iron Co. for £13,034 10s., for the construction of a new sea outfall from the harbour along the beach close to the East Cliff and Copt Point. For the sewer 48-inch diameter cast iron pipes are to be used, specially coated to withstand the action of sea water. The beach is subject to storms and great precautions have to be taken to hold the pipes in place. At the lower end a chamber is to be constructed with agitating weirs to break up any solids remaining in the sewage and also to act as an air buffer against the ramming action of the incoming waves. The engineers are W. H. Radford & Son, of Nottingham. Work is to be started as soon as possible.

Copyright in Art.—III.

By Selwyn Brinton, M.A.

(Of the Inner Temple, Barrister-at-Law.)

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In the present notice I am treating more directly the protection afforded by our Law of Copyright since the Act of 1911 to architects and their work in this country; and this subject is particularly interesting, because such protection and recognition of the claims of this important side of art creation has been a matter of comparatively recent legislation.

I must here refer my reader to the first article of this series published in The Architect of March 10, 1922, in which I traced briefly the story of Copyright in Art, and showed how first engravings and prints, in the Engravings Copyright Acts of 1734 and 1766 (8 Geo. II., cap. 13 and 7 Geo. III., c. 38) and the Prints Copyright Act, 1777 (17 Geo. III., c. 57), then the claims of sculpture in Sculpture Copyright Act of 1814 (54 Geo. III., c. 56), and later in the same century, in 1862, paintings, drawings and photographs by the Fine Arts Copyright Act (25 and 26 Vict., c. 68) were acknowledged and protected for definite periods from the date of publication, and, in the last-named Act, for the life of the author and for seven years after his decease.

But this protection did not extend to works of architecture, saving only to architect's plans, which were protected as artistic works—more specifically as "drawings"—under the Fine Arts Copyright Act of 1862; and the justice of the claim of architecture to a wider and more generous treatment was recognised in foreign countries (*i.e.* France, Belgium, and later Germany) even before the revision of the Berne Convention, which, drawn up originally in 1886 as a "Convention for protecting effectively and in as uniform a manner as possible the right of authors over their literary and artistic works," had been revised by the contracting States in 1908. In Article 2 of this Convention it was expressly declared that the expression "literary and artistic works" applied to architecture.

It was, however, by no means plain sailing to bring this desirable alteration into our own statutes: although a majority of the Committee reported in favour of including "works of architecture" among subjects of copyright, there was considerable opposition to that claim when the new Copyright Act was before Parliament. The objection seems to have been that there might be a difficulty, if architectural work was given copyright protection, of distinguishing between work of such artistic character as to merit protection and such as had no such character, and again, that the inclusion of works of architecture might lead to a flood of litigation on this subject.

Mr. W. A. Coppinger, F.S.A., LL.D., in the fifth edition of his admirable study of the Law of Copyright, points out that, as to the first of these objections, the difficulty is no greater than that met with in the case of any other artistic work; and as to the second, that there had been, when he wrote, no case of architects complaining before the Courts of infringement, and that, moreover, "the burden of proof will lie upon any architect who brings an action for infringement to show that the work is original, and that the alleged infringing edifice must have been copied from his." He goes on to add, in my judgment very rightly, that architects feel it is a gain to the profession that the principle has been at length acknowledged, and that "one architect has no right to copy servilely a building designed by another."

The Copyright Act of 1911 does, therefore, now include works of architecture among "artistic works" protected under Section 35 of the Act. Artistic work is there defined to include, besides paintings, drawings, sculpture, etc., "architectural works of art"; and in the same Section an "architectural work of art" is further defined as meaning "any building or structure having an artistic character or design, in respect of such character or design, or any model for such building or structure, provided the protection afforded by the Act shall be confined to the artistic character and design, and shall not extend to processes or methods of construction."

The above definition seems in some points open to criticism. Who is to judge whether a building possesses artistic character or design; for it seems rather much to expect the Court to decide this difficult problem; and again, simplicity of design may often be an advantage, and should not be in any way penalised by possibly lessening the certainty of protection.

Another point to which I shall come shortly is that of the remedies for infringement. The copyright in any architectural work obviously lies, not in the builder, but in the author of the plans. Section 5 of the Act of 1911 seems to express this point clearly in the words "subject to the provisions of this Act the author of a work shall be the first owner of the copyright therein," though later in the same section it is provided that "where the author was in the employment of some other person under a contract of service or apprenticeship, and the work was made in the course of his employment by that person, the person by whom the author was employed shall, in the absence of any agreement to the contrary, be the first owner of the copyright."

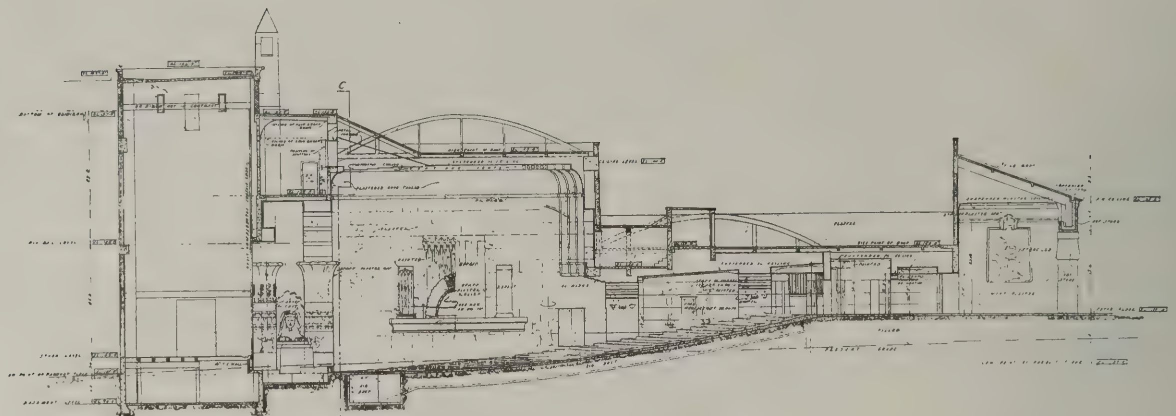
Obviously such a contract of service or apprenticeship does not come into the usual relations of architect and client; and therefore—unless the client has obtained an assignment of the copyright in writing from the architect—it is the architect who will have the right of action if the building is copied, nor will the client possess any right to repeat other buildings from the plans which have come into his possession, such right remaining with the author, that is to say the architect.

By Section 2 of the present Act, copyright in any work shall be deemed to be infringed by any person who, without the consent of the owner of the copyright, does anything the sole right to do which is by this Act conferred on the owner of the copyright; but it is expressly provided later in the same Section (iii) that "the making or publishing of paintings, drawings, engravings or photographs (which are not in the nature of architectural drawings or plans) of any architectural work of art" shall not constitute an infringement of copyright. The infringement must be another building or structure; and even then it would appear that the owner of the copyright is not entitled to obtain an injunction or interdict either to restrain the completion of a building which has been commenced or to order its demolition, though he will have a case for action for damages when it is completed.

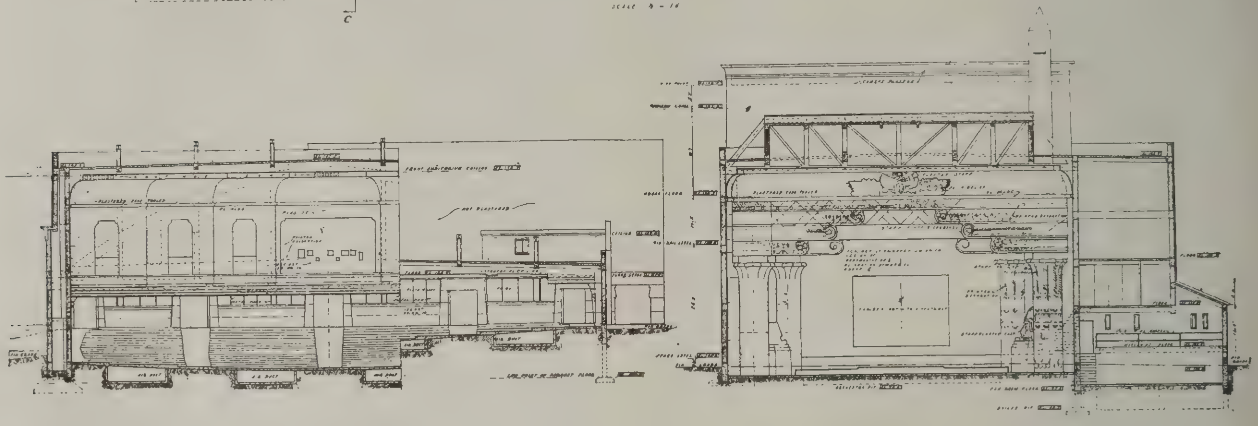
We come lastly to the case of innocent infringement. Here it is to be noted that, under Section 8 of the present Copyright Act, "where proceedings are taken in respect of the infringement of the copyright in any work, and the defendant in his defence alleges that he was not aware of the existence of the copyright in the work, the plaintiff shall not be entitled to any remedy other than an injunction or interdict in respect of the infringement if the defendant proves that at the date of the infringement he was not aware, and had no reasonable ground for suspecting, that copyright subsisted in the work."

It may be questioned whether what has been called this "curious section"—which was possibly inserted to take in some measure the place of the warning given formerly by such formalities as registration—could give very much protection to the "innocent infringer." He is—as will have been seen above—under the obligation to prove that he was not aware, when infringing, that "copyright subsisted in the work."

By Section 3 of the Act of 1911 it is provided that "the term for which copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death"; and this period of protection will therefore apply to architectural works. It may be noted here that a British architect, under Section 1 (i) of this Act (being at the date of making of such work a British subject or resident within any portion of His Majesty's dominions as aforesaid) would have a right to protection in England against piracy of a building erected from his design out of that country. Lastly, it would appear that the fact of non-publication will make no difference to the term of copyright.



SECTION A-A



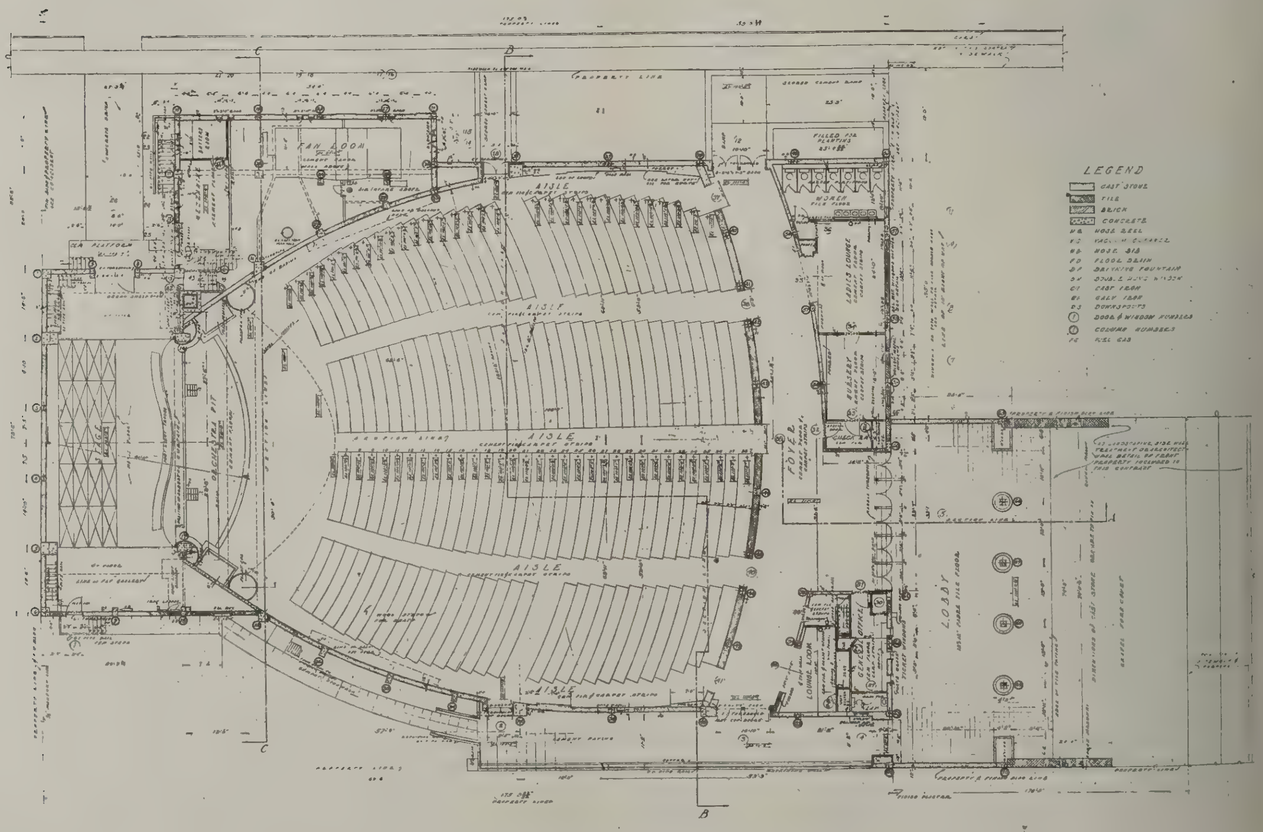
SECTION B-B

SECTION C-C

LONGITUDINAL AND TRANSVERSE SECTIONS

GRAUMAN THEATRE, HOLLYWOOD, CAL.

MEYER & HOLLER, ARCHITECTS

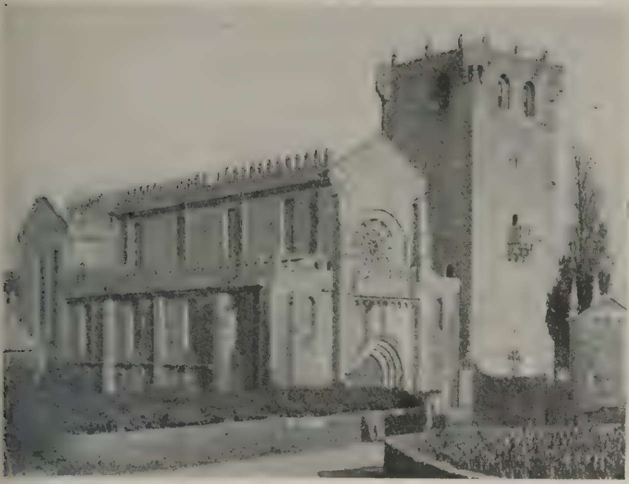


PARQUET FLOOR PLAN

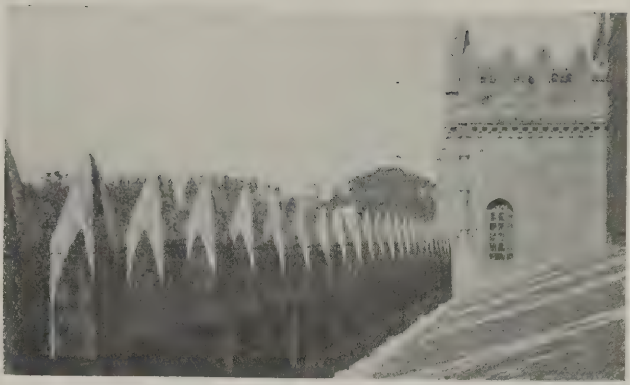
GRAUMAN THEATRE, HOLLYWOOD, CAL.

MEYER & HOLLER, ARCHITECTS

(See Plate Section for exterior and interior views of this theatre)



CHURCH AT LEÇA DO BAILIO, FROM NORTH-WEST.



PARAPET OF AISLE, CHURCH AT LEÇA DO BAILIO.

Notes from Portugal.

By G. A. T. Middleton.

No. XV.—Leça do Bailio.

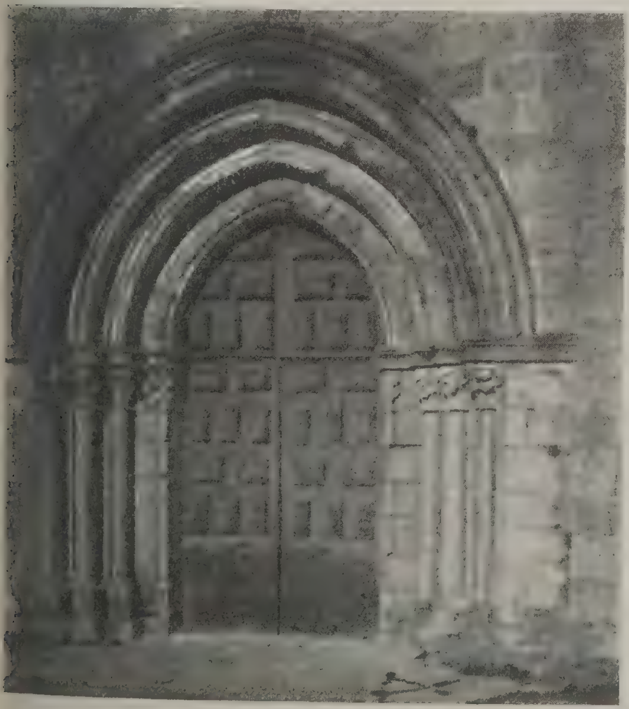
In England, the village church is a commonplace of the countryside, for we in England were blessed with peace during the mediæval period. On the continent of Europe it was far otherwise. The inhabitants were compelled, for personal safety, to live within walled towns. Village life was impossible, and the village church was non-existent, unless it combined the functions of church and fortress, as does the Church of Leça do Bailio, situated a few miles from Oporto, to a marked extent, making it one of the most interesting little edifices in Portugal.

Whichever way it is approached, on the level from south or north, or from below on the east or from the hill on the north, its fortified character is as apparent as its ecclesiastical, so prominent are the tall embattlements of the parapets and the sturdy proportions of the tower; this latter, a twelfth-century construction (as also is the church), being almost detached, yet accessible from the church alone.

So far have the defensive possibilities of the tower been carried that it has been provided with machicolated balconies on the three exposed sides, halfway up, and also at all four angles at the top.

It is from the tower, too, that the parapets round both aisles and nave are reached, that of the north aisle by means of a parapetted gallery across the west front, for the protection of the west door. The embattlements, it will be noticed, are not square-topped, as is usual in England and

CHURCH AT LEÇA DO BAILIO, FROM SOUTH.

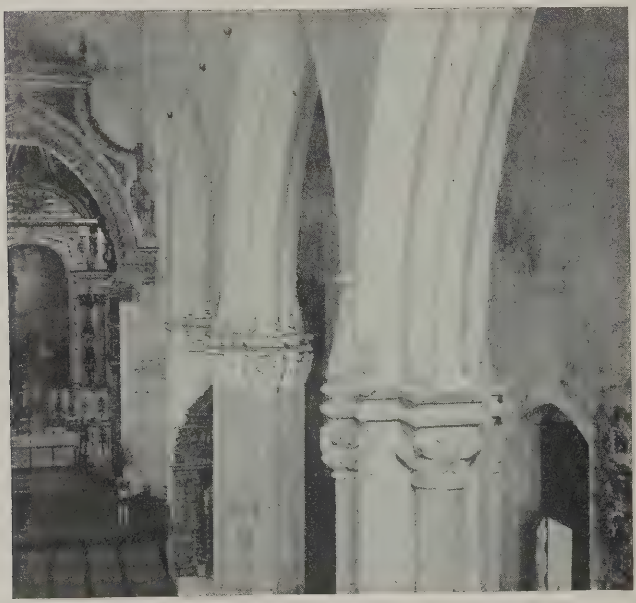


WEST DOOR OF CHURCH, LEÇA DO BAILIO.

WAYSIDE CROSS, LEÇA DO BAILIO.

France, but are surmounted by stones cut in pyramid form—a considerable additional protection to a tall archer, for arrows striking them would glance upwards; and that each embrasure was provided with a hanging shutter can be seen by the small holes in the stones in which the iron rod hinges rested.

So far as the architectural adornment of the church is concerned, interest centres entirely in the two similar doorways to the west and south and in the capitals of the nave arcade, all belonging to the latter part of the twelfth century. Doorways of much the same character are not infrequently met with in France, and more rarely in England also, with a pointed arch of strongly marked "orders," whose mouldings and enrichments are Romanesque rather than Gothic, and each carried by its own rook shaft having a deep capital carved with foliage and grotesque heads, with abacus rectangularly recessed to each, and carried across the face to stop against the nearest buttress and itself form a stop to the strong hood moulding.



NAVE ARCADE OF CHURCH, LEÇA DO BAILIO.

Strangely enough, the abacus used in the nave arcade has the same section as that of the doorways, but the capitals in some instances give the impression of having been recut or even renewed, so sharp is the carving—and that in granite! They all differ from one another, and some are full of sculptured incident. Unfortunately it was not possible to get into a position from which to photograph the best of them.

The church, however, is not all there is at Leça do Bailio, for about a quarter of a mile away there is possibly the most beautiful wayside cross in Portugal, where two roads meet. It is a crucifix of Manoëlian character and date, rising in delicate proportions from a tall pyramid of steps resting on a broad platform. It is just such a thing as might be erected to-day at home as a war memorial, only one doubts whether Portland stone will withstand the English climate for four hundred years so well as granite has stood that of Portugal; and even the fine carving of the crucifix here has been wrought in granite.

At the annual luncheon of the Federated Home-Grown Timber Merchants' Association, held at Cannon Street Hotel, London, Lieut.-Colonel Courthope, M.P., who lives at Whiligh, Sussex, said he had been supplying timber to the Office of Works for the restoration of the roof of Westminster Hall. A record, recently discovered, showed that in 1394 some oak trees, bought from an ancestor of his own, had been felled on the same property to form part of the roof. He had supplied 27,300 cubic feet of timber for the roof of the hall, and at least two of the trees which were used were alive and growing in 1394, when his ancestor was felling other trees for the same purpose.

Building Trade Crisis.

The result of the operatives' ballot was as follows:—

For acceptance of employers' terms	42,606
Against	140,952
Majority	98,346

The detailed figures of the voting for the various affiliated unions are as follow:—

	For.	Against.
Amalgamated Society of Woodworkers	18,840	39,671
Amalgamated Union of Building Trade Workers	7,114	25,443
National House and Ship Painters' Society ..	6,433	23,268
United Operative Plumbers	3,375	6,002
Amalgamated Slaters and Tilers' Society ..	441	529
National Association of Plasterers	1,197	6,998
Amalgamated Street Masons and Paviors ..	251	473
Amalgamated Society Woodcutting Machinists	611	1,772
"Altogether" Builders' Labourers	2,024	14,308
National Builders' Labourers	274	9,388
National Union of General Workers	468	8,121
Workers' Union	661	2,644
Building and Monumental Workers of Scotland	636	1,656
Amalgamated Slaters' Society of Scotland ..	215	626
Composite Branch Votes Returned to H. O. ..	66	53

The following agreed report of the secretaries of the Wages and Conditions Council was issued on Tuesday evening:—

> The National Wages and Conditions Council met to-day and received a report of the result of the vote of the operatives upon the employers' proposals for a reduction of wages, from which it appeared that the proposals had been rejected by a large majority. The operatives' representatives suggested that in the circumstances it was desirable that the present position should be maintained for a further period.
>
> After considerable discussion the employers' representatives intimated that they would have to report to their constituent bodies that the Council had failed to arrive at a settlement, and the Council decided to adjourn meanwhile.

Subsequently Mr. Nicholls, the President of the National Federation of Building Trade Employers, made the following statement:—

> The report as issued by the joint secretaries of the National Wages and Conditions Council does not fairly convey the situation. The operatives' proposal to retain the *status quo* was unanimously rejected by the employers, and as the Council's functions as a negotiating body had failed, the meeting was adjourned to an indefinite date. The position will be considered by the employers at a special meeting early next week and their national decision will determine what action will be taken. There is no reason to suppose that the view taken by the employers on the Wages and Conditions Council will not be confirmed.

Competition News.

The Tunbridge Wells Corporation invite competitive designs for a pavilion in the Calverley Grounds, for the purpose of meetings, entertainments, etc. Premiums of £150, £100 and £50 are offered for the designs placed first, second and third by Mr. E. Guy Dawber, F.R.I.B.A., F.S.A., the assessor. Designs must be lodged with the Town Clerk not later than July 3. The conditions may be obtained on deposit of £1 1s. from the Borough Surveyor.

The Newcastle City Council have referred back a recommendation of their Watch Committee to spend about £1,000 on premiums for competitive designs for a proposed police and fire station.

Plans for nearly 250 houses and bungalows were passed by the Hendon District Council last week.

Glasgow Dean of Guild Court on the 5th inst. passed plans for work valued at £50,000, including work to cost over £23,000 for the Corporation.

The Town Planning Institute has formed a North of Enlgand Division, the first meeting of which was held in Manchester last week, under the chairmanship of Mr. Corby Hall, of Leeds.

Messrs. W. J. Furse & Co., Ltd., electrical engineers and contractors, Nottingham, have received the contract for the erection of a power-station chimney at Delectaland, Watford (£2,500), also for boiler seatings for same.

The Lincoln City Council have decided to apply for powers to demolish 130 slum dwellings, and to build as many new houses on the Council's site, each house to contain bath, three bedrooms, parlour, etc., and a garden. The scheme is estimated to cost £60,000.

Correspondence.

Blame the Architect.

To the Editor of THE ARCHITECT.

SIR,—The leading article in your last week's issue under the above-named heading provides much food for thought and shows a practical acquaintance with some of the troubles which beset all architects in the practice of their profession.

There can be little doubt that, as you say, goodwill between architect and client is essential, and in the endeavour to secure that goodwill we must always bear in mind, and give credit for, the difference between he who is expending more money perhaps than he can well afford, and he who is receiving a percentage on the professional work which is, however, thoroughly well earned; and, in the decorative portion of the business, if in the hands of the lady of the house, we must keep before us the difference in *taste* of one, cultivated by long experience, and the other of a superficial kind acquired by up-to-date fireworks. One item of my own experience is that an architect may thoroughly satisfy the client, but not the household staff, and here is the commencement and duration of trouble.

You, sir, remark that "it is an odd freak of human nature that makes a man eager to dispense with the architect's services, to think he could do better without." In my opinion, however, if that "odd freak" is the result of inspecting many of the houses (and the lay-out thereof) erected during the reign of Dr. Addison and of Sir Alfred Mond, I can well understand the eagerness of a man, with those structures in his mind's eye, to dispense with the services of such a brilliant architectural staff as that which surrounded the two gentlemen above-named.

Your article will do good in bringing before us the little troubles which await us all on our architectural journey through life.

I am,
Yours obediently,
WM. WOODWARD,
F.R.I.B.A., F.S.I.

15 Great James Street, Bedford Row, W.C.1.
March 21, 1923.

Glazed Materials.

To the Editor of THE ARCHITECT.

SIR,—The paragraph in your issue of March 6 has hardly the accuracy of statement one looks for in a technical or professional journal.

You speak of the "difference in cost between a building carried out in glazed and unglazed material" as if the advantage were *necessarily* with the building constructed of the latter.

Obviously this is not so. Building costs depend upon a wide range of considerations. I personally have been associated with contracts when estimates for work in terra cotta have been accepted because they were lower than for the same work in stone.

Do you seriously suggest, for instance, that a public building with an average amount of decorative work, to be erected at Boston or Lincoln, would be cheaper in Bath or Portland stone than in constructional terra cotta? Surely the question of freight and sculptural costs is the essence of the matter. In addition, there is, in the case of large industrial cities, the subsequent cost of upkeep; limestone demanding renewals and repairs, not to mention a costly process of cleaning, whereas terra cotta is imperishable and inexpensively cleaned.

Even in the case of smaller buildings, if the demand for matt glazed materials were as great as for bricks and stucco, the cost would, I submit, compare very favourably, having in view the permanence of the fabric and the negligible upkeep charges.

It is, in fact, surprising how prejudice against comparatively new building materials and methods lingers even among the profession and in first-class technical journals.—Yours, etc.,

AARON G. BOOT.

36 Zulla Road, Mapperley Park, Nottingham.
March 20, 1923.

[We cannot understand our correspondent's point. Terra cotta is no more a glazed material than any hard brick such as Ruabon is. We speak of "salt glazed bricks" or glazed bricks to distinguish them from such materials as Ruabon bricks, which are very closely similar in texture and appearance to terra cotta made in the same district.—ED.]

Acoustics of Large Concert Rooms.

To the Editor of THE ARCHITECT.

SIR,—In reply to questions on the above subject, may I outline briefly the main facts which have emerged as a result of acoustic research upon this class of auditory during recent years. The problem of reverberation where music is concerned is different to that for the speaking voice. In the case of the speaking voice as short a reverberation as is consistent with loudness is desirable; where music is concerned a reverberation of at least 2 seconds is necessary in order to secure adequate tone for strings and voices. Now the absorption necessary to ensure 2 seconds reverberation is generally provided for by the relatively large audiences common to concert rooms and opera houses. Consider a concert room seating 2,000. A rough preliminary calculation will show that such an audience will provide 2,000 by $4{\cdot}7 = 9{,}400$ units of absorption. In order to secure a reverberation of 2 seconds this involves a minimum air volume of 376,000 cubic feet. But other factors such as stage scenery, carpets, drapery, will also contribute slightly to the total absorption. This means that for music the figure 376,000 cubic feet is on the small side. If, on calculating and adding in all the factors, using Sabine's formula (as recently explained by Mr. G. A. Sutherland in his lectures at University College, published in the architectural Press), it is found that the reverberation is considerably less than 2 seconds, dissatisfaction in regard both to the tone and loudness of instruments and of voices is sure to result unless a considerable amount of wood panelling is used near the source of sound. The effect of wood panelling is to brighten the tone of instruments by absorbing sound in the lower rather than in the upper register and thereby relatively increasing the power of over-tones. Also, wood surfaces, owing to resonance, increase loudness where they are in contact with or placed very near to a musical instrument. Thus the floor of a platform or orchestra pit having a 6-inch air space below it will reinforce notes of average pitch for instruments in contact with the floor such as piano, double base, cello, solo voice. In the case of a platform, if the floor is tightly jointed to the panelling of the platform recess, so as to make one continuous wood area, the reinforcing effect is likely to be greater. The 6-inch air space under the floor can be either continuous or divided into compartments by floor joists: the conditions are fulfilled by 6 inch floor joists laid upon a concrete floor. The reinforcing of double basses and cellos by some such means as this is important. Halls suitable to the speaking voice, owing to their short reverberation, are frequently dull and lifeless for orchestral and choral music and inaudible for cellos, double basses and the larger organ pipes.

In regard to shape, a good acoustic plan for this class of auditory has certainly emerged. This is the fan shape with a portion of the splay to right and left of platform turned over to form a deep proscenium arch. This plan has been developed in America for combined concert and cinema auditories. The splays both of vertical and horizontal section form useful reflecting surfaces and should be hard and smooth. They are diminished in their usefulness if they are broken for the insertion of boxes. Up to a level of 8 or 10 ft. above the stage floor they should be unbroken but doors can be shown in them. The fan shape has developed naturally, as far as acoustics is concerned, from the principle of directing sound with as few reflections as possible from the neighbourhood of the source to the neighbourhood of the audience. For this reason the splays require to be hard reflectors and not soft absorbers. Sound paths vary in efficiency. From a crowded platform, horizontal sound paths are interrupted, and lessened in efficiency, by neighbouring human beings. On the other hand the vertical sound path rising from each instrument rapidly disengages and preserves its intensity. Hence the great importance of the overhead portion of the proscenium splay. Sound reflected from the overhead portion of the splay will penetrate under the galleries at a more efficient angle than will sound reflected from the horizontal plane of the ceiling. The depth of penetration of these proscenium reflections under the gallery should mark the limit of the rear seats on the floor below.

The rear wall of an organ chamber can with advantage be tilted forwards, thereby deflecting sound downwards; the rear wall of an orchestra pit can with advantage be tilted backwards thereby deflecting sound upwards.

The galleries should be at as great a rake as possible so that direct sound from the speaker's mouth shall reach each listener at as wide an angle of incidence as possible. Sound traversing human heads at a narrow angle dies away at a considerably greater rate than in proportion to the square of the distance from the source. Hence deep galleries, the rear seats of which are screened from useful reflecting sources, and having nothing to rely upon but the direct sound, naturally suffer from insufficient loudness and lack of tone. Conversely, a chief feature in the Greek theatre and Bayreuth theatre types is the efficient rake of the seats and the full advantage taken thereby of the direct sound.

Having directed the bulk of the sound upon the audience, it remains to prevent reflections back from rear walls behind the audience. This can be done by a frieze of acoustic felt, acoustic tiles or plaster. In a modern acoustically designed hall there need be no more than a very small area on the back wall that will prove dangerous and will require to be eliminated.

Where curves are used either on plan or section the lengths of the radius of the curve must be carefully considered. The arc of a curved ceiling must have a radius *considerably greater* than the height of the hall. The curves of coves must have a radius considerably smaller than the length of any possible sound path in the room. This is in order to prevent concentration of sounds from curved surfaces to focal points which might result in echoes. Echoes are caused not merely by long reflected paths, but also by bringing sound to a focus at the level of seats.

It is important in large concert rooms, as in cinema halls, not to include the expensive seats in the front rows next the platform. Nothing is more annoying than to pay a high price for a seat at the end of a front row and to hear the whole performance astigmatically. A distance of at least 20 or 30 feet back is required for an equal assembling of sounds from all instruments upon the ear.

Good examples of concert rooms showing acoustic design are as follows:—

New Orchestra Hall, Boston, Sabine's "Collected Papers," page 60; Hill Memorial Auditorium, University of Michigan, "Brickbuilder," August, 1913; Smith Memorial School of Music, Illinois University, "Archit. Forum," November, 1921; Eastman Theatre and School of Music, "American Architect," February 28, 1923.—Yours, &c.,

H. Bagenal,
Architectural Association.

Statutory Registration of Architects.

To the Editor of The Architect.

Sir,—I am directed by the Council of the Royal Institute of British Architects to inform you of the steps that have been taken by them since the beginning of the year in pursuance of the policy of Statutory Registration for the Architectural Profession.

A Bill was drafted and submitted to a General Meeting of the Royal Institute at the end of January. The meeting was very fully attended, and it was decided, as a first step, to consult the other professional Societies and interests affected and to endeavour to obtain a general consensus of professional opinion in favour of the Bill.

Copies of the Bill have accordingly been sent to all the Architectural Societies concerned and to the representatives of unattached architects, and they have been invited to consider the Bill in principle and in detail and to inform me of all points in which they think it might be improved or amended.

On the receipt of this information the Registration Committee of the Royal Institute will endeavour to embody the suggestions in the draft as far as may be practicable, and a meeting of all interested parties will be arranged at which the Bill, as amended, will be examined and discussed.

It is hoped that by this means the unanimity which is desired will be obtained in support of the Bill.—Yours, etc.,

Ian MacAlister,
Royal Institute of British Architects, Secretary.
9, Conduit Street,
Hanover Square, W.1.
March 16, 1923.

London County Hall Acoustics.

The continued difficulty of hearing members' speeches has at last produced a protest from the floor of the Council Chamber. After a speech by the Deputy Chairman of the Council (Lord Haddo) on a proposal to license a cabaret entertainment at the Empire Musical Hall, Mr. Watts, a Labour member, protested that neither members of the Council nor occupants of the Press Gallery had heard a "single word" of the hon. member's speech.

Mr. W. J. Pincombe, supplementing Mr. Watts's complaint, said members of the Press Gallery were endeavouring to carry out their work under great difficulty. They were compelled to climb to the front of the balustrade over the Chairman's head, and even then were apparently unable to hear the discussions. Benches were reserved on the floor of the Chamber for the Council's officials, and he suggested they at once be made available for representatives of the Press.

The Chairman of the Council was understood to rule that Mr. Pincombe's suggestion was not one with which the Council could deal at that juncture.

Architectural Musings.

Professor Beresford Pite opened a discussion at a meeting of the Technical Circle of the Institute of Journalists which was held at the Hall of the Institute on Tuesday the 20th inst. The subject as announced was "The Attitude of the Press Towards Architecture," but it was used rather as a peg on which to discourse subtly about the message of architecture than as an opportunity for enlightening the journalists on the proper way of treating the Mistress Art. In his first sentence Professor Pite said he would not attempt to talk from any other standpoint than that of an architect, and would not pretend to be a man-in-the-street. He wanted to suggest one or two leading thoughts on the subject of architecture. The first was that all art was a form of intellectual expression. A man's intellect exercised itself and expressed itself in the arts of form as well as the arts of speech; therefore architecture was a form of intellectual expression. If that fact was comprehended it opened up possibilities of a new language of thought at all events, and it was not visionary to suggest that as one walked the streets of an ancient and modern city such as London and observed the buildings of the past one was looking at the intellectual thought of its builders. Art being a form of intellectual expression meant that within the art was a personality, the thinking intellect, which was expressing itself through the form. The elements of personality in a building had many various expressions. All work of the hand must bear the impress of the mind; it must be rational, and should carry a reason for what is being done. If there was no reason, there were certain places where the doer ought to be looked after. That truth lay behind every concrete work of art. Every brick must be laid with certain white brain matter as well as with mortar, and so reveal whether the bricklayer was doing his level best. The same was true of all departments of building, and in none more so than in the arrangement of the structure. A building cannot possess nobility unless it proceeds from a noble mind, or beauty unless it proceeds from a mind endowed with sympathy. The recent concentration of thought about Wren suggested a remarkable illustration of that fact. Wren's breadth, his grasp of the subject, his strength, his scientific quality as well as his imaginative quality, the sweet attractiveness of his work—all these qualities corresponded with what was known of Wren's character.

There was something in the personality of a building. Each one has to fulfil a definite purpose: unless it fulfilled it adequately it was not worth discussing, whether it be a house, a church, a concert hall, or anything else. That purpose, however, was but a small part of architecture. The greatest of human teachers had said "If any man can compel you to go with him a mile, go with him twain"—the first would be compulsory, the second voluntary. So a building must first satisfy the necessities of the case; but beyond that the architect must go a second mile and make the building something of himself by putting his heart into it. In that way personality lifts commonplace purposeful building into the higher plane of artistic sacrificial effort in which the artist sacrifices part of himself. Architects are right in saying they are paid for the preparation of drawings. But the client never pays him for what he has rubbed out. What he rubs out is that extra mile in which he puts himself. Only in that second mile does personality get into a building. When the masters are intelligent enough to see it architects look at it in a very different manner.

Professor Flinders Petrie many years ago, said Professor Pite, pointed out that literature might actually hamper the expression of thought. There were forms of thought which became hampered if it was attempted to translate them into words. And though literary men claimed to be the high priests of intellectual expression, yet beyond their ken lay fields incapable of description in words. Could the impression produced on the mind by the Great Pyramids be described sufficiently fully to be satisfactory? Could the effect of the Parthenon be described even by a technical expert? Words failed anyone who stood within Westminster Abbey. All those aspects belonged to art and in the clearest way to architecture. There occurred a mysterious element of spiritual elevation which comes upon the mind and impresses it in the presence of great architecture. It was higher than didactic teaching, higher than any teaching that can be imparted by a picture or a statue. Both these latter might be taught better by an inscription and understood better with the aid of a handbook. It was not so with architecture. Architecture rises above that level and speaks for itself with a mysterious power that was not accidental but real. The Bishop of London once declared that the dome of St. Paul's preached a greater sermon than any which had been given beneath it. To a certain extent he was right, though that continuous sermon might not be applicable to practical experience. For many years the "Illustrated London News" showed a little landscape

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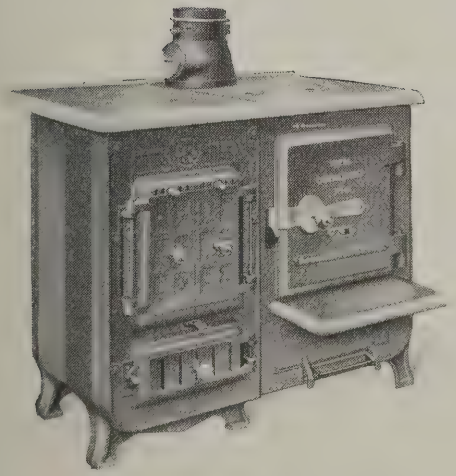

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of London with St. Paul's forming the headline or frontispiece. If a Tommy on a lonely outpost fell dreaming of London, in what would London most likely express itself to him? Most probably not in the street where he had worked or lived, but in the form of the dome of St. Paul's, which is identified with London, home and Great Britain itself. Turner declared that St. Paul's was London: wipe out that dome and we would have to reconceive London. Westminster Abbey was not London. But just what the Campanile is to Venice or even the Eiffel Tower is to Paris, in making a mental landscape of those cities, so just that is St. Paul's to London. Such buildings become the embodiment of what is sweetest and best in our dreaming thoughts.

There were many other aspects of architecture which might be touched on—such as the relation of buildings to the generation in which they were created. It was impossible to apply the standards of architectural life in ancient Rome or Egypt to present-day London, or to compare the monuments of India with those at home. People were apt to talk as if one could compare the design of the Parthenon with the designer of something modern. That could not be done. The Parthenon was never designed at all! One might just as well talk about the designer of Westminster Abbey. But St. Paul's had a designer.

Some acquaintance with the social conditions of the time is necessary before any comparisons can be made. "The grandeur that was Rome." Rome was the city of every architect's idea of grandeur. If an architect to-day sits down to plan grandly, he plans on Roman lines. If he wants to plan picturesquely, he thinks perhaps of his favourite inn. Or for a religious atmosphere he thinks of the great mediæval cathedrals. The hugeness of the Roman architectural masses was the essence of their tyranny, their slave labour, their lust for ambition and display, regardless of human life. That was a queer criticism of architecture but an important one. There could be no good pining for Roman architecture if Roman architecture was achieved in that fashion —we did not want it. Those wonderful early Renaissance palaces with their huge flat walls and beetling cornices were the product of other conditions. In the early Middle Ages the Italian republics turned out of their communities the Barons, the brigand chiefs, the tyrants, and said, "We are going to grow up without interference from these families." The aristocrats consequently erected castles outside the walls of these young communities at strategic points. Soon the infant republics saw they had made a mistake and so they reimported the nobles into their midst, but without permitting them any voice in the control of public affairs. Thereupon the nobles erected within the walls the castles which formerly were outside —castles of autocratic blackguardism within the limits of a free community. These are the series of palaces which exist to-day.

When our Houses of Parliament were burnt down in the first half of last century, a Select Committee was appointed to advise the Government as to the style to be adopted for the new building. The Committee, after enquiry, reported that it should be a distinctly English style of architecture, and found there were two. First was the Tudor or Perpendicular style, and second the Elizabethan. Whereupon Parliament ordered a competition to be held under those limitations. The result being the present very interesting and beautiful palace over which Carlyle waxed so scornful. Tudor was a peculiarly English phase of architecture arising out of the ravages of the Black Death in 1348 in an island community. A break was made in tradition, and when architecture once more revived it did so on Perpendicular lines. Elizabethan architecture likewise was peculiar to ourselves. England had no painters, no architects, no sculptors during the years when the Continent was blooming into the glories of the Renaissance. This was because Protestantism and Elizabeth's politics cut off England from France, Italy, Spain and the rest of the Continent. English genius, however, found an outlet in Shakespeare.

The political and social circumstances of buildings must enter into any intelligent criticism, and the grounds of criticism must be widened accordingly. Criticism that was negative or destructive was very scant help, whereas criticism educive and constructive was valuable. They would scorn a man who said he did not like St. Paul's or Westminster Abbey. Certainly the personal element becomes unavoidable in present-day difficulties. We could well be proud of the output of English architecture during the Victorian period. Nowhere else in the world can one find such buildings as the Houses of Parliament, the Law Courts and St. Pancras—so extraordinarily complete, so masterly, so unworldly, marked by an originality that spoke volumes for the virility of the English school of design. After the Napoleonic Wars, Parliament voted about a million sterling for the erection of churches. They were designed in the then classic fashion, with solemn porticoes and steeples, such as All Souls', Langham Place; St. Mark's, Bryanston Square; Kennington Church, and the one in Marylebone Road. What a revolution had since taken place! What a magnificent number of towers and spires and chancel fittings have grown up in the short time that has elapsed!

Domestic architecture was the one quality for which this country is envied by the world. We admire the stateliness of the French cities and even feel some regard for the jazz effects of Germany. But for our sensations of comfort—the way we can plan a house to enjoy it inside and out—the Continental nations never surpass us. With that quality came a large circle of handicrafts.

"The Architect" Fifty Years Ago.

MARCH 22, 1873.

THE LEICESTER MUNICIPAL BUILDINGS COMPETITION.

Last week we published the report of the Municipal Buildings Committee of the Town Council upon the selection of the designs. The Leicester Society of Architects have been considering this report, and have sent to the Council a series of resolutions which are stated to have been framed solely with a view of making the result of the competition satisfactory both to the Corporation and the competitors. The proposal adopted by the Town Council, it may be remembered, was that they were to reduce the number of designs to ten, which were to be referred to an architect appointed by the Council, who was to select five of these designs and place them in order of merit, and that the final decision should be left to the Council.

The Leicester Society of Architects, after expressing their regret that the proposal in the report is not in accordance with the suggestions they made before to the Council, propose the following arrangement:—

"That the Town Council having selected ten designs, as proposed in the 'Supplementary Instructions,' this society is of opinion that the authors of the said designs should themselves appoint the referee, who shall adjudicate thereon, and select the three premiated designs, placing them in the order of merit.

"That the authors of the three designs so selected should have the option of obtaining, simultaneously, tenders for the realisation of their designs; that if the recipient of the first premium shall produce a *bona fide* tender, not exceeding the sum stipulated to be expended, he shall be the appointed architect; and failing to do this, that the same test shall be successively applied to the architects who have received the second and third premiums.

"That the cost of all ornamentation indicated on the drawings and perspective views, whether it be sculpture, stained glass, or other decoration, shall be understood as being comprised in the amount stipulated to be expended, and shall be included in the tenders produced by the authors of the premiated designs."

These resolutions having been submitted to the Town Council, after some discussion they were referred to the Municipal Buildings Committee.

Plans for a proposed school to accommodate 500 children have been submitted to the Thurnscoe Education Committee by the West Riding County Council. The school will be erected on land close to Hickleton Main Colliery.

The Birmingham Public Works and Town Planning Committee have accepted the tender of Messrs. G. Percy Trentham (Ltd.) for £13,649 for the construction of a bridge 85 feet wide over the Teme at Bromford Lane.

Mr. Giles Gilbert Scott, A.R.A., F.R.I.B.A., has been elected a member of the Athenæum under the provisions of Rule II. of the Club, which empowers the annual election by the Committee of a certain number of persons "of distinguished eminence in science, literature, the arts, or for public service."

An appeal is made for funds to restore the wall paintings in Bramley Church, north of Basingstoke. Mr. Philip Johnson, F.S.A., F.R.I.B.A., whose advice has been taken, says the painting of the martyrdom of St. Thomas of Canterbury is "one of the very earliest that have come down to us of the historical event."

The immediate publication is announced by Messrs. B. T. Batsford of "English Interiors in Smaller Houses from the Restoration to the Regency, 1660-1830," by M. Jourdain. The work will illustrate the evolution of the simpler types of design during the Stuart, Georgian and Classic periods—the author having adopted this threefold classification of the Later Renaissance period—in a series of more than 100 plates from photographs and measured drawings. In addition to a number of complete interiors, including minor rooms from larger houses, a feature is important sections with comparative plates on interior features—staircase, hall, chimneypiece, door, ceiling, panelling, wall decoration, wall paper, etc. It is melancholy to contemplate that an appreciable proportion of the houses illustrated have been recently swept away.

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Housing Propaganda.

Two pamphlets have reached us this week on the subject of housing, which is easily first among the questions engaging public interest. The first of these—"How to get Houses"*—is written by Mr. George Hicks, the Secretary of the Amalgamated Union of Building Trade Workers, and published by the Trades Union Congress and the Labour Party. There are some remarkable sentences in it. "What the building trades must do is this—they must bring down prices so that houses can be built and let at rates not higher than 40 per cent. above those prevailing in 1913. *The public have got the Rent Restriction Act and mean to stick to it.*" The first part of this pronouncement is one which Mr. Hicks's colleagues can do much to bring about by abandoning their policy of the restriction of output. Were they to do this they would find the public more sympathetic. It is easy to denounce rings, but the public does not forget that in the immediate past no profiteer has used his power more remorselessly and selfishly than Labour has done. As regards "sticking" to the Rent Restriction Act, Labour may be assured that they are at the same time "sticking" to a regime which must inevitably tend to reduce the number of houses built and automatically to stereotype a shortage. We are told in another sentence that "the speculative builder refuses point blank to build, except for those who are better off, unless he can add to the burden of the working classes, whose wages in the aggregate have been reduced by over £12,000,000 a week since 1921." This sentence is indicative of the unfair methods often employed by the Labour Party with the object of creating prejudice. The speculative builder, like the working man, has to earn a living, and cannot do so if for every pound spent he only receives a pound or less in return. We might as reasonably say that the butcher adds to our burdens by charging for his meat, a reason perhaps why the average man should start an agitation for free meals! Mr. Hicks himself is probably adding to the "burdens" of his Association by taking a salary from them just like a wicked profiteer.

We are further told in this remarkable production that "the Government can purchase and even manufacture materials at prices considerably lower than the private manufacturer or builder." Has Mr. Hicks, like Rip Van Winkle, been sleeping for many years, or does he confine himself to reading translations of Russian revolutionary literature?

The most amazing misstatement is, however, given on the last page, and is that building costs are half what they were a year ago. We should much like the proof of this astounding statement. Mr. Hicks, like other writers and speakers, bases his arguments of what can now be done on the assumption that Government will subsidise each house built each year. Assuming this, his method is to show that there need be no reluctance to build, for everything is all right. But the average man knows perfectly well that everything is altogether wrong when he is called on to provide out of income tax 2s. 6d. a week for every house built for twenty years, even if the British worker benefits.

It is a relief to turn from such a farrago of stupid nonsense to the excellent report on labour saving in small houses which has been prepared by the subcommittee of the workers' section of the Garden Cities and Town Planning Association.† We are glad to see the following: "The secret of labour saving is to be found in the elimination of the need for work rather than in the provision of so-called labour saving devices, for, indeed, many of these appliances create more labour than they save. A proper equipment of shelves and cupboards in their right places may save considerably more work than an expensive fitting, and the same applies to the position of the sink, drawer and cooking stove." This and other remarks in the pamphlet show that the framers of the report recognise the paramount importance of planning, and have not been beguiled by the myth that difficulties can be solved by the use of ingeniously contrived fittings. We are told that there are never enough shelves, yet as many as are wanted could be provided at the cost of the unwanted dresser in the living room. The report states that there is an increasing tendency to use the living room as a sitting room only, doing all cooking in the scullery, a fact which has an intimate bearing on planning.

The old-fashioned range is said to be universally condemned, while there is an increasing tendency to separate the provision of hot water from that of cooking. Although the report is not founded on laboratory tests its framers have collected a large amount of interesting and valuable data as to heating, cooking and laundry work. For example, waste in heating has been traced to the loss of heat already produced, and it is found that by the use of a properly insulated storage tank enough hot water for a day can be produced by firing a small independent boiler for two hours out of the twenty-four with a consumption of one-third of a cwt. of coke weekly, and the insulation of a 25-gallon cylinder attached to a kitchen range by 3 inches of slag wool at the sides and 6 inches at the top will keep water hot for thirty hours.

The report covers a great mass of detail, and has evidently been produced with great care and thoroughness, and will be of value to many. It is proposed to form a catalogue of advertisements, not to serve as a recommended list, but to give as complete a summary as possible in a classified form of the various fittings and devices which are now to be obtained.

There is little doubt that in every urban locality it would be a great advantage to form a small municipal museum containing samples of the various fittings which in the view of the municipality's technical advisers are considered as being most efficient and valuable for the smaller class of housing, which might serve a dual purpose, first, that of enabling people to ascertain facts and collect data of the first importance for their comfort and convenience, and, secondly, of affording the manufacturers of these articles an opportunity of displaying their wares. Such a collection might be attached to a municipal library or other building in the smaller towns, and would in the larger cities justify a building to itself with the provision of a staff. It is frequently impossible for financial reasons to spend all that is desirable in any building, but a large part of the expense goes in the purchase of fittings of some kind or other, and there is no reason why this expenditure should not be more wisely made than is often the case.

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* "How to Get Houses." By George Hicks. Published by the Trades Union Congress and the Labour Party, Eccleston Square, London, S.W.1. 3d. net.

† "Labour Saving in Small Houses." The Garden Cities and Town Planning Association. Published by P. S. King & Co., Ltd. 9d. net.

Our Illustrations.

CONVERSION OF OLD FARMHOUSE INTO VILLA, CANNES, FRANCE. H. S. GOODHART-RENDEL, Architect.
ADDITIONS TO TULLICH LODGE, BALLATER. E. VINCENT HARRIS, Architect.
OLD LONDON BRIDGE. From a drawing by G. YATES, 1828.
PROPOSED RESIDENCE AT KEIGHLEY, YORKS. ARTHUR NUNWEEK, Architect.

Notes and Comments.

Rings.

In the course of his presidential address Mr. Selly, the President of the National Federation of House Builders, said that he had never believed all that had been said about rings and combines, but undoubtedly large profits had been made owing to the situation which arose after the armistice. He suggested that his association might amalgamate with the Master Builders' Association and make such a powerful body that they could tackle rings better than any Government Department. There seems to us to be much in the suggestion here made, which we trust may lead to action. If so, we are sure that architects as a whole would assist the builders' organisations by refusing to specify goods the cost of which was inflated by a combination, and if such a policy were carried out an end might be put to any undue inflation of the cost of materials and fittings, an end devoutly to be hoped for.

"Arquitectura Española."

We have received the first number of a new periodical dealing with Spanish architecture and published in Madrid. With a view to a circulation which is probably expected to be considerable in South America the paper is printed in English and Spanish, though we do not know whether the bilingual character will be maintained in the letterpress of future numbers. The first number consists solely of plates with a short description under each, the plates illustrating both old and new work. The new work shown in this number is not of very great interest or merit, but we hope will be followed by material gathered from the great cities of Spanish America which contain modern work of the first importance and interest. There is an immense field of useful illustration covering old Spanish work which we hope may be given at future dates and which would be much appreciated in this country and should be valuable to architects in Spain itself. Meanwhile, we wish our contemporary every good fortune.

The Threatened Strike.

As is usual in such cases, both parties in the building dispute wish to fix the onus of a break on the other side. Broadly speaking, it seems to us that the men may have some justification for considering themselves technically in the right, but that the employers have for all practical purposes given the notice which was due and also defined the terms which they were ready to give.

The main question seems to us to be whether the reductions are or are not necessary and whether the wages as reduced are or are not lower than those which obtain in analogous trades and occupations. As to the former of these questions it seems to be admitted by all that the cost of building must be reduced if the industry is to prosper, while as to the last it would unhappily seem equally clear that the workers in other occupations are in an even worse position. It is a pity that a solution cannot be agreed to that by working rather longer hours the present weekly wages might be retained.

Most unfortunately these questions cannot be settled solely on the basis of what the reasonable wants of any class of men are, but are complicated by the problem of whether it is or is not possible to make a profit on working at those rates sufficient to keep an industry on its legs.

The Bank of England.

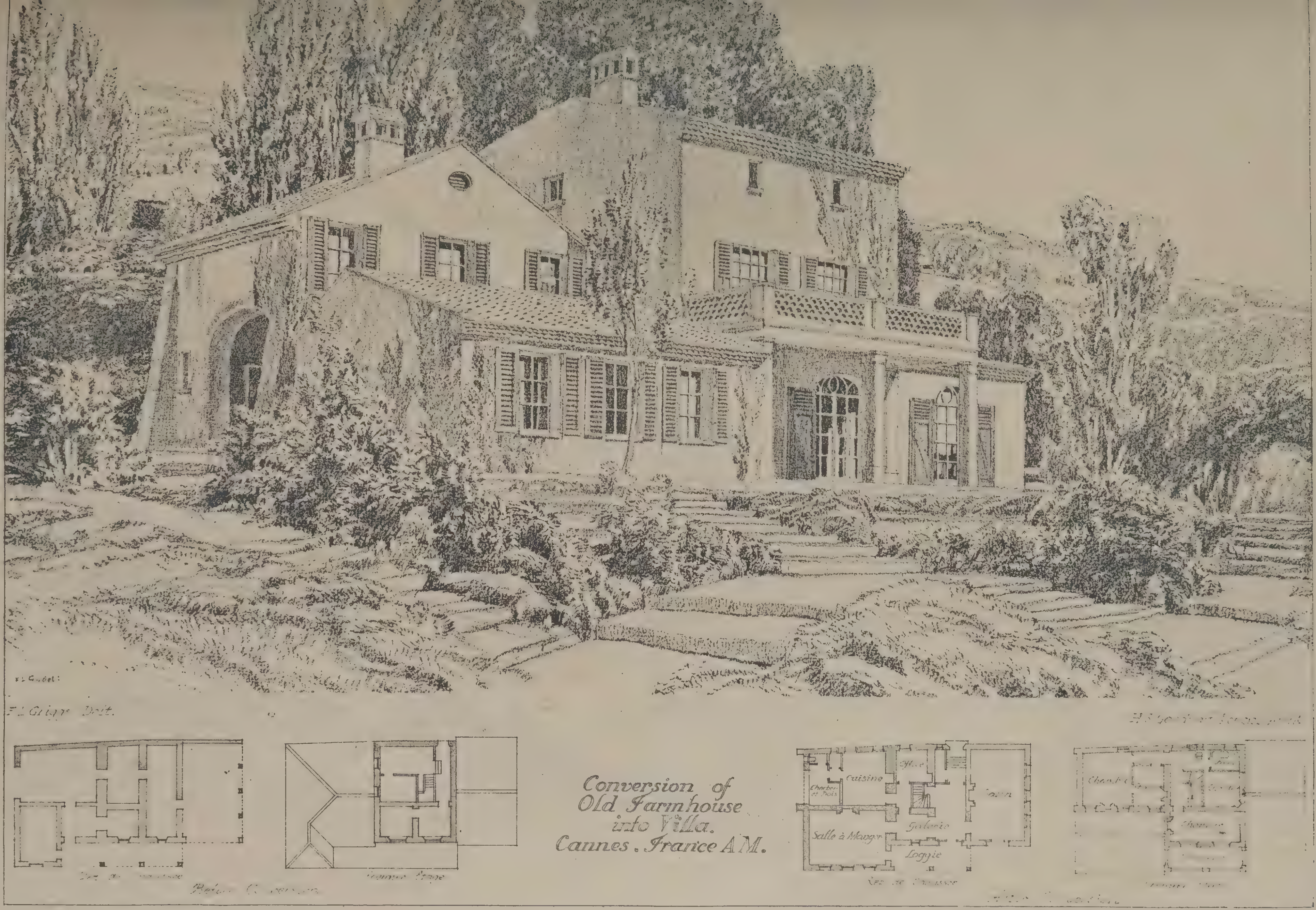
At the half-yearly Court of the Bank of England it was stated by the governor that it was necessary to obtain the proprietors' consent to the introduction of a Parliamentary Bill for the rebuilding of the Bank. When the Church of St. Christopher Stocks was demolished to make room for extensions it was provided that any human remains found in the vaults or burial ground of the church should be removed to the northernmost part of the churchyard for reinterment and no building was thereafter to be erected over such vault. The Bank has since purchased vaults at Nunhead Cemetery and it is sought by the proposed Act to remove the restrictions which now obtain. Several of the governors, we are glad to note, spoke in favour of giving the architect an entirely free hand in dealing with the site and not restricting him by any enforced retention of the outer walls of Soane's building. We hope that this will be so, not that Soane's building should necessarily be demolished, but that the question of its removal or otherwise should be left entirely to Mr. Baker's judgment.

The Architectural Assistant's Minimum Salary.

A perusal of the Journal of the Architects and Surveyors Assistants' Union brings home to us the very great difficulties standing in the way of those who, in a profession like ours, try to adhere to fixed rates. Much of the work the average architect obtains comes to him in the form of occasional windfalls. Much of it is of a speculative nature, and in addition he is one of those who frequently, like doctors or lawyers, have to wait long for fees. Unlike the lawyer, there is hardly a fixed demand for the architect's work. It follows from this that a small fraction of the profession only is in a position to be able, with any certainty, to forecast the amount of their income, and such men are frequently utterly unable to consider the question of the salaries of assistants purely on their merits. It is a question not of what the assistant is worth but what they can afford to pay. The minimum salary can only come in where public departmental offices and a very few men having exceptionally well established practices are concerned. We have every sympathy with the architectural assistant and hope he will get as much as he can. The question which he should ask himself, and we ask him, is whether he is likely to better his position by insisting on an official minimum salary, or, on the other hand, acting as a free lance. No one ought to enter the profession unless he has exceptional ability or exceptional prospects, or better still, both, and the best thing that the assistant can do in his own interests is to deter others from following so precarious a calling. If he can do this he will automatically improve the lot of those who are now in the fold.

The Greater London Scheme.

The majority report on London government is, we think, wisely adverse to any alteration in the existing boundaries of the districts included in the County of London. It is



INK PHOTO SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET LONDON W.1

CONVERSION OF OLD FARMHOUSE INTO VILLA, CANNES, FRANCE, A.M.

H. S. GOODHART-RENDEL, ARCHITECT.

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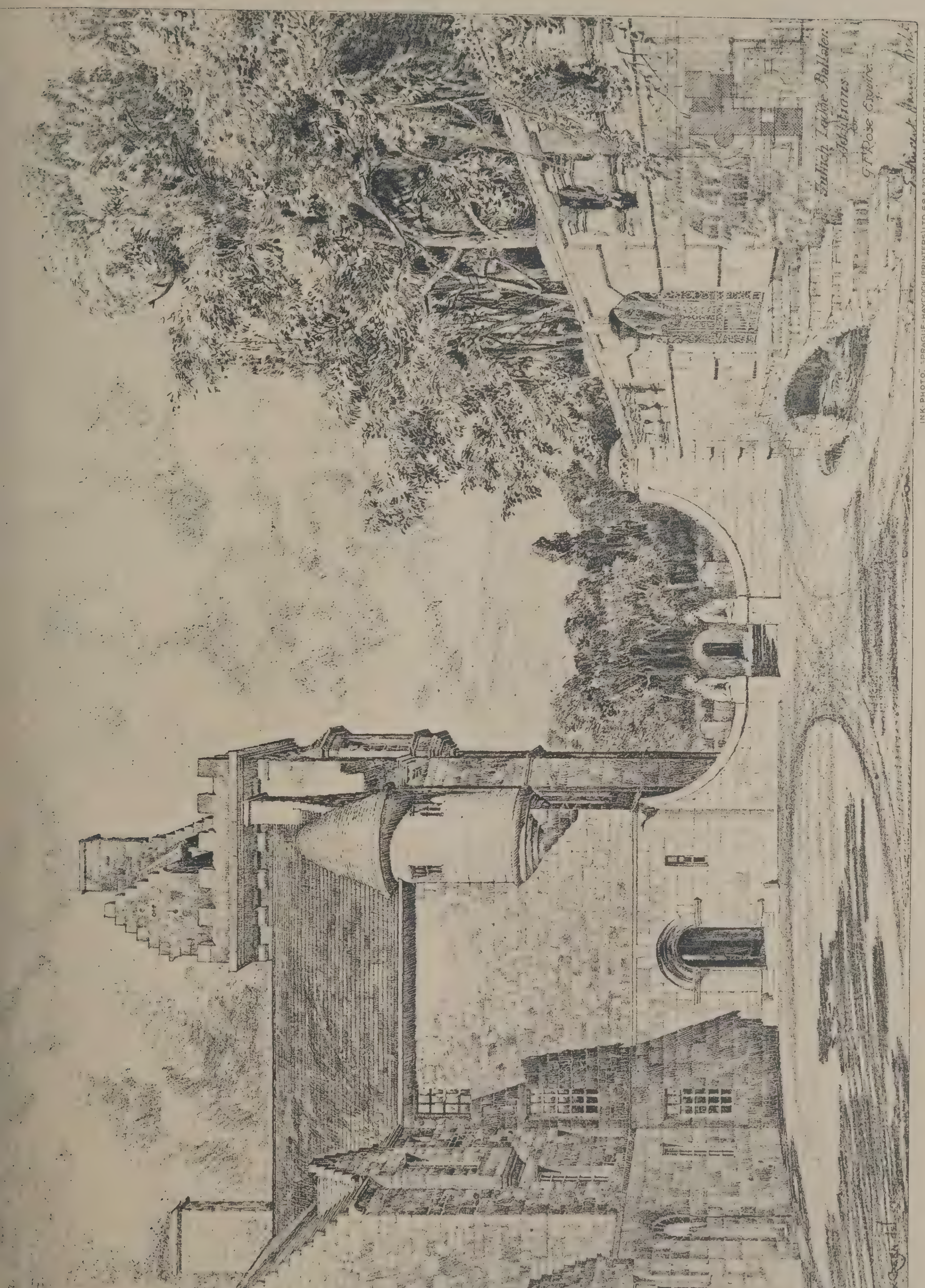

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TULLICH LODGE, BALLATER, ADDITIONS FOR G. F. ROSE, Esq.

S. VINCENT HARRIS, Architect.

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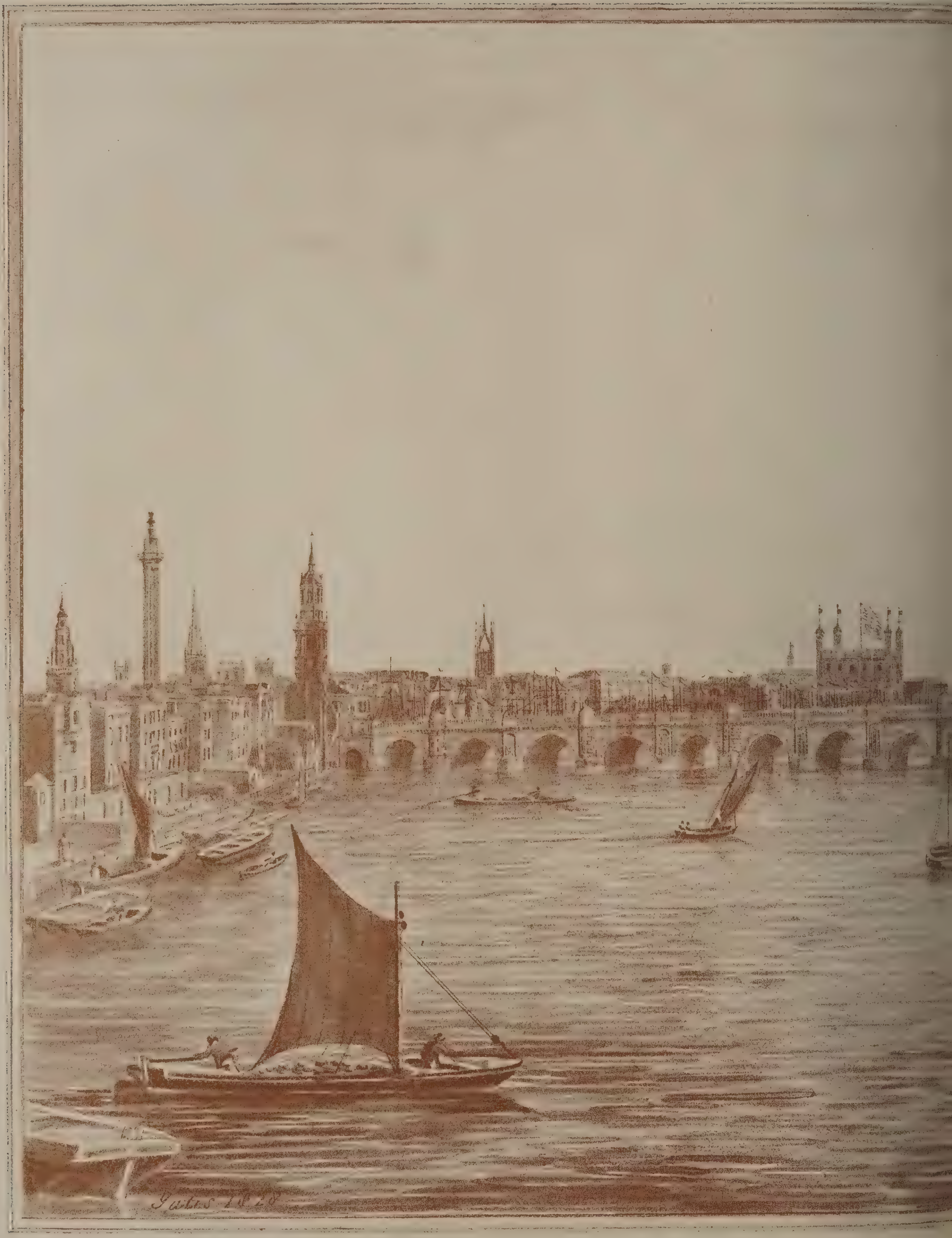

OLD

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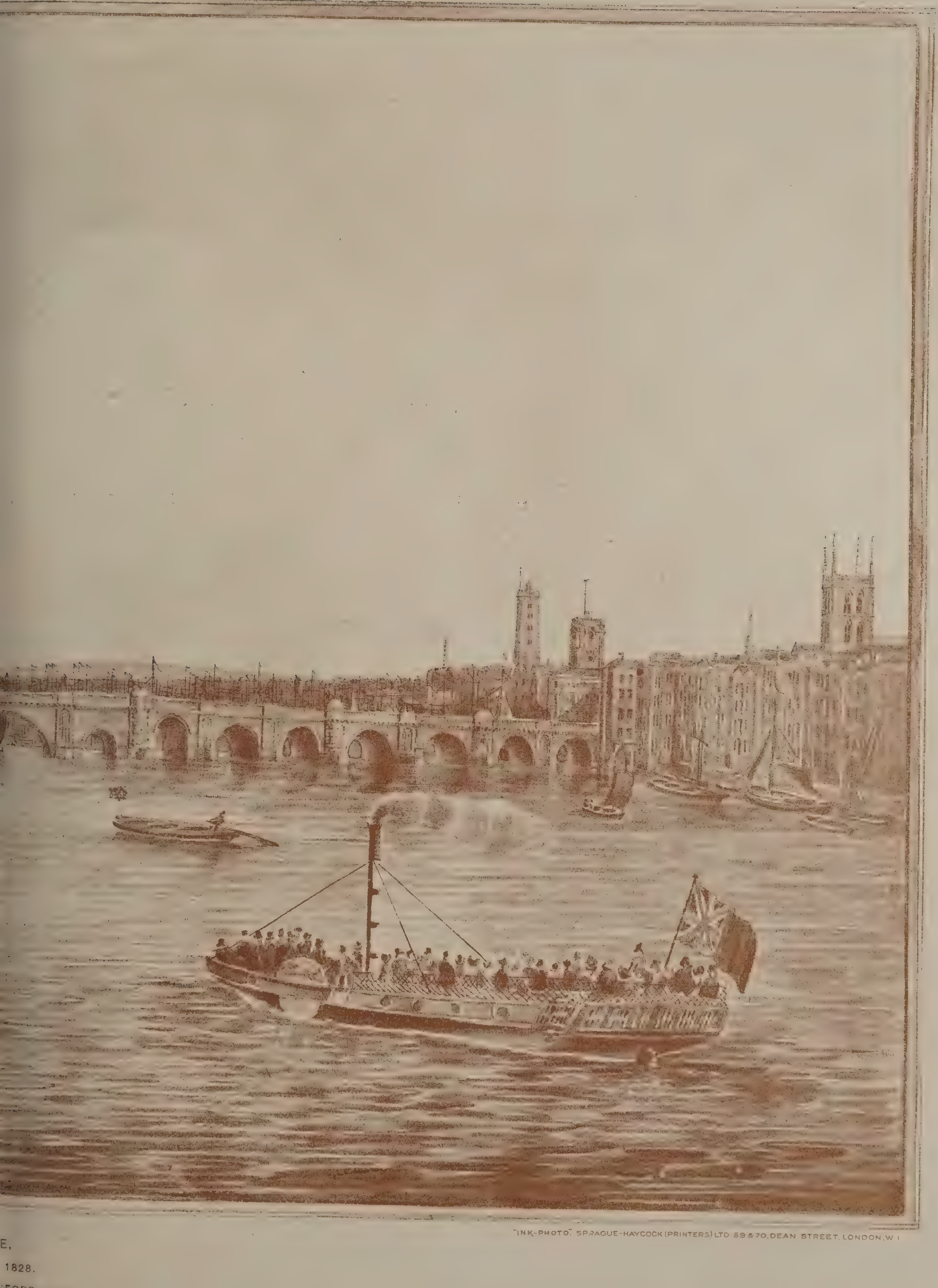

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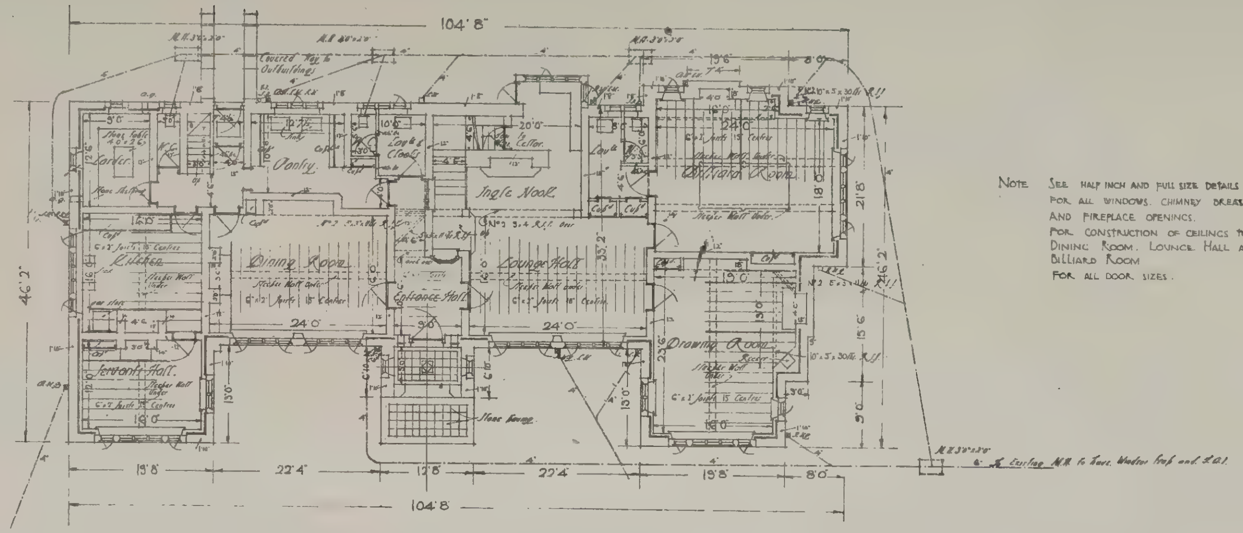
·PROPOSED·RESIDENCE·AT·KEICHLEY·YORKS·FOR·OSCAR·CRAVEN·ESQ

·Scale·⅛"-1 Foot·

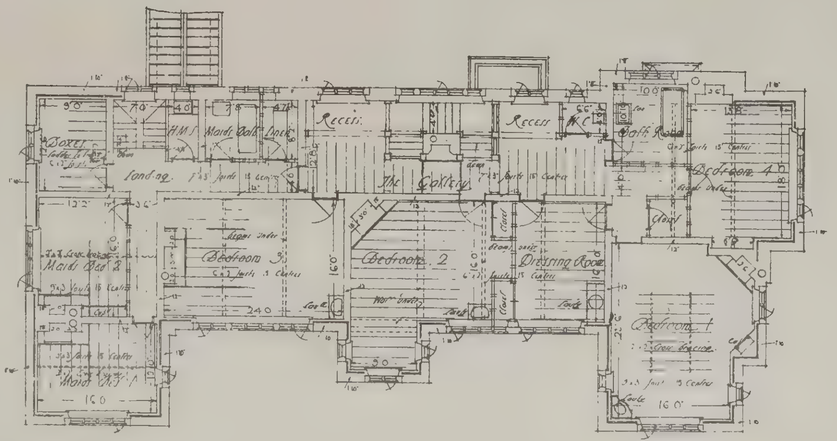
Drawing No 1

Note, The Contractor is referred to later plans for drainage.

Note See half inch and full size details for all windows. chimney breasts and fireplace openings.
For construction of ceilings to Dining Room. Lounge Hall and Billiard Room
For all door sizes.



·THE·CROUND·FLOOR·PLAN·



·THE·FIRST·FLOOR·PLAN·

Arthur Nunweck. Architect.
87 Fargate. Sheffield. Jan. 1920.

PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET. LONDON W I

RESIDENCE AT KEIGHLEY, YORKS, FOR OSCAR CRAVEN, ESQ.

ARTHUR NUNWECK, A

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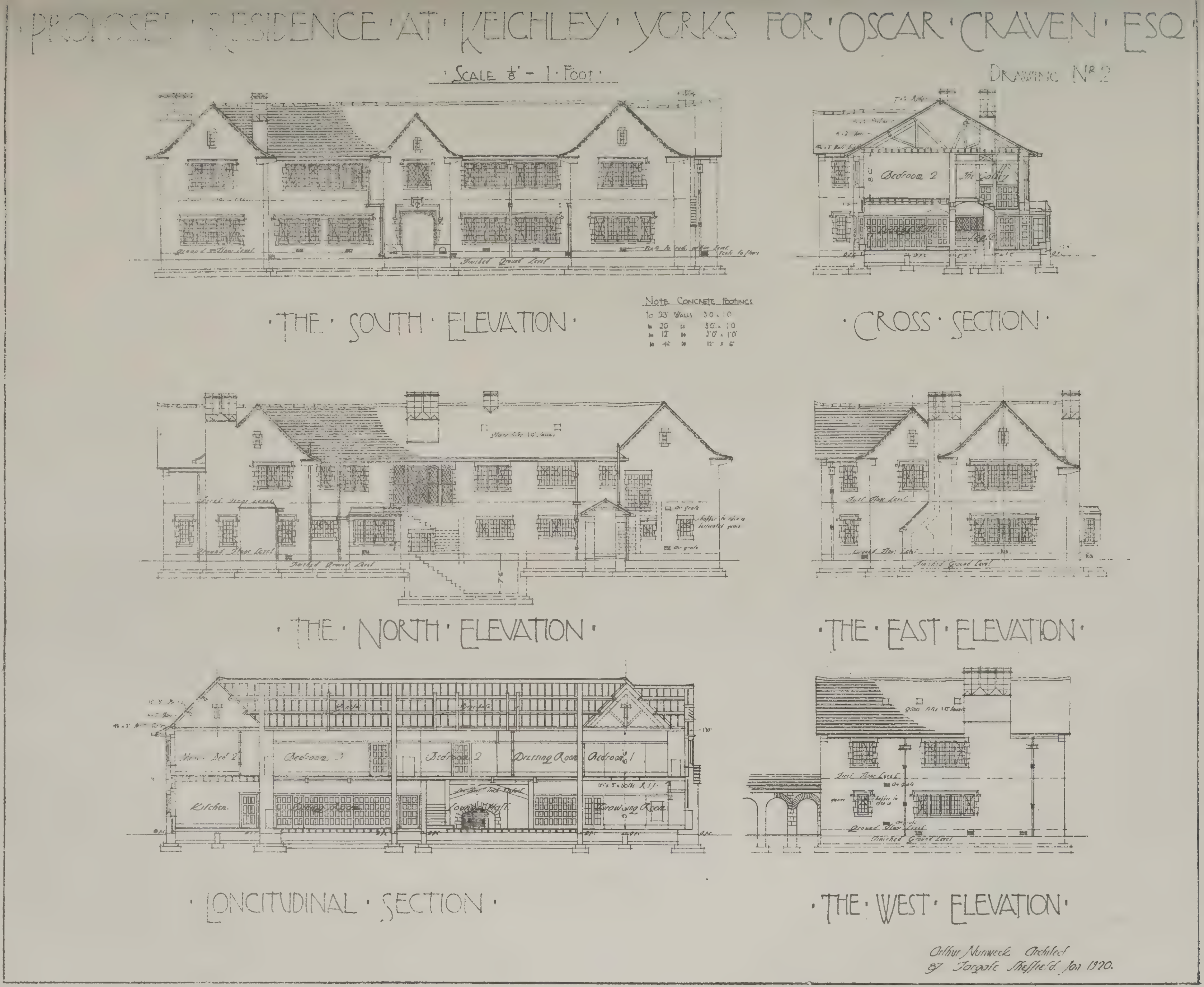

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RESIDENCE AT KEIGHLEY, YORKS, FOR OSCAR CRAVEN, ESQ.

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stated that there is no evidence of any general lack of efficiency or economy in the administration of the districts surrounding London and no sufficient reason has been shown for altering the existing dual system of local government in London or for altering areas. The existing inequalities in the distribution of local burdens are stated to be unjustifiable and should be reduced, and surrounding districts which are closely connected with London should become partners in the equalisation of rates. It is recommended that the produce of a 1s. 6d. rate should be distributed among local government units in proportion to their day population and the produce of a 1s. rate should be distributed $\frac{1}{3}$ in proportion to the night population of the unions and $\frac{2}{3}$ in relation to the night population of unions in overcrowded areas.

It may reasonably be held that any such proposal as the foregoing, which means that districts like Shoreditch, Poplar, and Islington would gain, ought to be accompanied with more efficient safeguards against waste than any which at present exist, otherwise equalisation may lead to great and growing evils, although it is in essence fair and reasonable.

Correspondence.

Whitgift Hospital.

To the Editor of The Architect.

Sir,—At a well-attended meeting of this Committee it was resolved by an overwhelming majority "That bearing in mind the fact that a considerable number of traders and others who constantly use the main street, although in many cases they may be indifferent to the claims of the hospital as an ancient building, view with alarm the proposed creation of a wide open space in the centre of the town, which will, in their opinion, constitute a public danger and practically cut the main street into two portions and seriously interfere with the flow of pedestrian traffic, this Committee urges upon those who will oppose the Council's Bill in Parliament the necessity of emphasising the serious practical disadvantages of the Council's scheme from a town-planning point of view and the superiority of the alternative plan."

The Committee fully recognise the necessity of widening the main street at an early date, and would draw attention to the fact that the alternative plan alluded to has received the approval of all the societies desirous of maintaining the hospital, including such high authorities as the Royal Institute of British Architects and the Town-planning Institute, and that, although an attempt is now being made by the Croydon Town Council to repudiate it, it is understood that the Bill will probably be debated in the House of Lords in the middle of April.—Yours, etc.,

John O. Pelton, Hon. Secretary,
Whitgift Hospital Preservation Committee.

Housing and Wages.

To the Editor of The Architect.

Sir,—Whatever scheme may be proposed for supplying the country's need for houses, one fact stands out which is indisputable, and it is this: There will be no houses built on any appreciable scale until it is an economic proposition to build them. Reason it in any way that may be desired, propose any solution that may seem good, devise any policy however ingenious, it invariably comes back to this. The investor will not invest unless he can see a prospect of a reasonable return on his investment.

Therefore it is to this end, and with this in view particularly with regard to housing, that the master builder has been compelled to insist on his demand for a very substantial reduction in the wages paid to the building trade operative. That it goes very much against the grain to have to reduce the wage of anyone need scarcely be stated; but that there can be no houses built whilst the rate of wages renders economic building impossible is beyond dispute.

The question which the operative might ask himself is whether it is better to have half a loaf than no loaf at all. This may seem a brutal way of putting it; but it is a statement of affairs brought about by the pressure of economic conditions, and one which the master builder is in no way responsible for.

The conditions of living at the present time demand sacrifice. This is no doubt a miserable state of affairs; but it is true and should be faced. And perhaps on no section of the community does this unpleasant condition bear more heavily than upon the middle class investor, whom taxation is in a fair way to crush entirely out of existence. Members of the Labour community should recognise this and believe that it is possible for people to suffer without undue outcry about it. They should reflect that it does not always follow that because a grim silence is maintained there is no pain.

And if, therefore, the building operative is now asked to suffer, he will at least have the satisfaction that he is not alone. Let him reflect that individual sacrifice has always been necessary for the benefit of the whole; and let him apply this particularly to the present case—the country's need for housing, which cannot be achieved without some sacrifice by all concerned.

If also to these reflections he should add the one that when he has accepted the reduction now demanded he will still be no worse off as to wages when working for building trade employers than when working for shipbuilder, railways and other industries employing building trade labour, he will then perhaps realise that the hardship is not entirely so impossible of endurance as it might at first have seemed.

The dispute in the building industry is a sufficiently serious matter affecting directly some 500,000 men and indirectly a vastly larger number in many industries. But when regarded in the light that a national stoppage would seriously delay the steps which are contemplated to cope with the provision of the houses so badly needed throughout the country, it is suicidal.

It should be pointed out that when the operatives claim that the agreement between them and the employers has been broken because

> THAT AGREEMENT WAS TO THE EFFECT THAT WAGES SHOULD BE BASED ON THE COST OF LIVING,

they omit to state that

> THE AGREEMENT ALSO PROVIDES THAT DUE CONSIDERATION SHALL BE GIVEN TO WHETHER THE STATE OF TRADE AND OTHER CIRCUMSTANCES WARRANT A VARIATION OF STATUS.

The further fact, that the operatives had already agreed to a decision of May 26, 1922, which was founded on this latter provision, is additional evidence that no breach of agreement on the part of the employers has transpired.—Yours faithfully,

H. Bryant Newbold,
Editor, the "National Builder," the
official organ of the National Federation
of Building Trades Employers of Great
Britain and Ireland.

48 Bedford Square, W.C.1.

London's Open Spaces.

To the Editor of The Architect.

Sir,—I read in The Architect of March 23 of a communication sent to the London County Council *re* the preservation of the London Squares.

I notice that "Mornington Crescent," in the main road near Camden Town, is for sale. There is not one of these green spaces that can be spared, as you well know.

If compensation is due to the owners of these spaces, it should be paid by those whose property overlooks them, to the extent of the depreciation which the loss of these spaces would occasion, and the balance by the London County Council.—Yours, etc.,

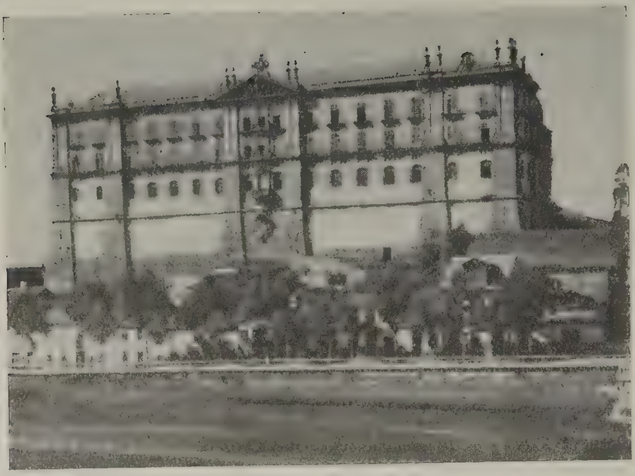
Thomas A. Mason,

Temple Court,
Reigate,
March 24.

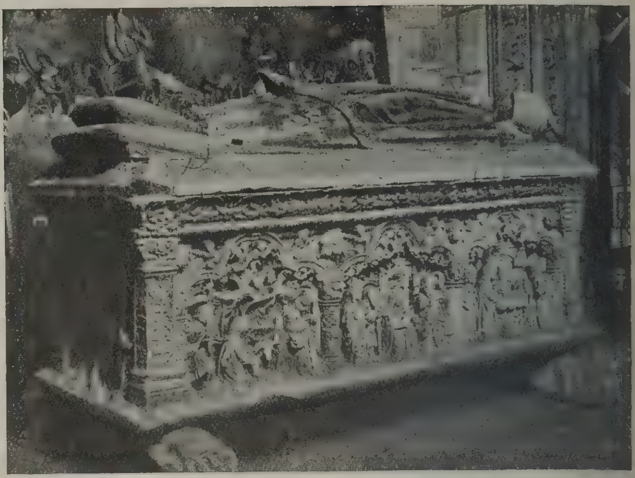
The Architecture Club Exhibition.

The Architecture Club's Exhibition "Twenty Years of British Architecture," at Grosvenor House, has attracted so much interest among the general public, as well as in the architectural profession, and there was so strong a desire expressed for its continuance beyond the date fixed, that the Committee have arranged, by permission of the Duke of Westminster, to keep the Exhibition open daily, with the exception of Good Friday, until April 7.

It took some days before the public became aware of the many interests of the Exhibition—the unequalled display of large photographs illustrating the new England that had been built in the twentieth century, and the remarkable collection of models of country houses, town houses and gardens, housing schemes, great shops and public buildings, and the afternoon lectures with lantern slides—but soon the beautiful galleries of Grosvenor House became a daily resort to many. The lecture and lantern programme is being extended, and interesting new features have been arranged.



THE CONVENT, VILLA DO CONDE.



SIXTEENTH-CENTURY TOMB, VILLA DO CONDE.

Notes from Portugal.

By G. A. T. Middleton.

No. XVI.—Villa do Conde.

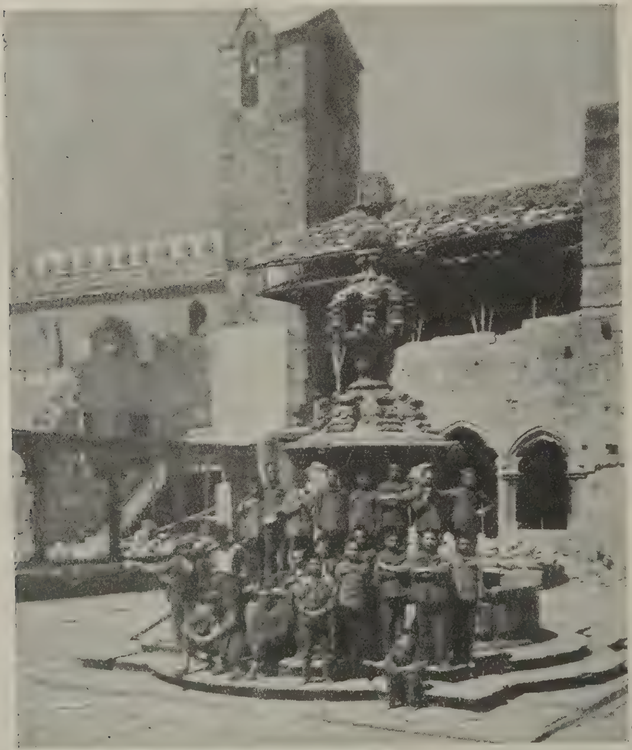
The little seaport town of Villa do Conde, in northern Portugal, is now best known as the centre of the pillow-lace industry, in which most of the women are engaged, working at their open doors and windows. Probably it is a survival, the art having originally been introduced and practised at the great convent which, in one guise or another, dominated the town for many centuries.

Its seventeenth-century residential block still rises intact from the escarpment of the harbour, an admirable example of Renaissance composition. Vertically there are central and angle projecting masses; horizontally there are three stages separated by strings, of which the upper casts the deeper shadow, broken by consoles which agree with the window openings above. The lower string occurs at the ground level in the rear—that is, at the top of the hill—and below it the wall is battered and displays no openings except an inconspicuous doorway. The angle pilasters of the projections, both at centre and corners, are also battered on this lowest storey, giving a fine effect of strength. On the next storey they are rusticated, and on the upmost they are treated as the pilasters of a Corinthian Order.

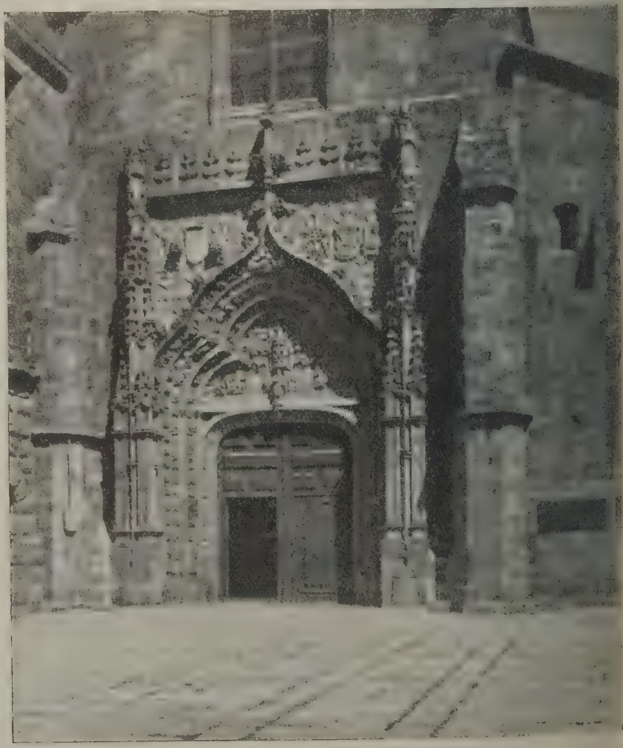
But it is the fenestration which is most masterly in this fine structure, richer above than below, and richest of all in the centre, where it is assisted by fine carving and the use of minor orders and balconied windows.

It is now neglected, in disrepair, and used as an industrial school for boys; but what a pity—what a thousand pities—that it is not carefully preserved and carefully studied! It is beyond all criticism, ranking alike in proportion, originality, and detail with the greatest Renaissance buildings of all countries.

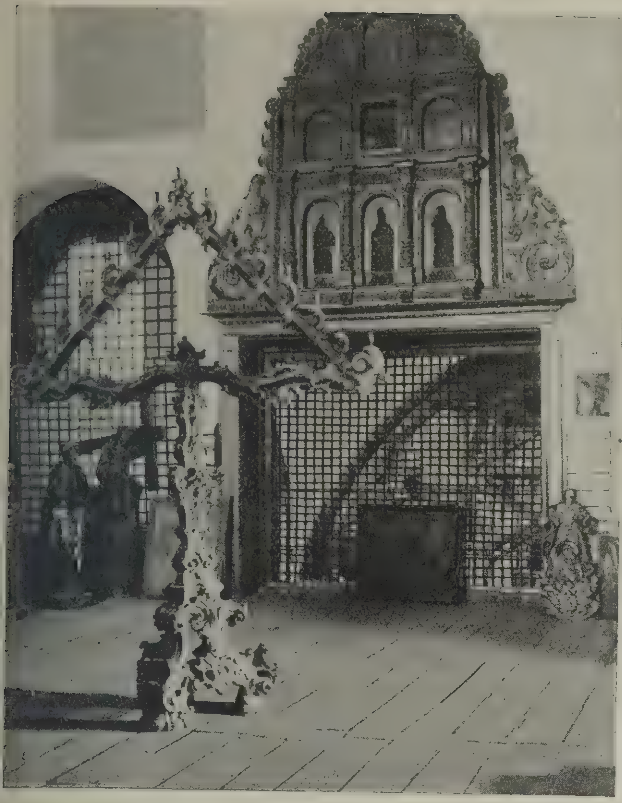
Fortunately it has so far escaped the fate of the cloister and church behind it on the hill, to which it was a late addition, for they are in absolute ruin, as the photograph of the fountain in the cloister court well shows. The fountain itself, certainly, has comparatively escaped destruction,



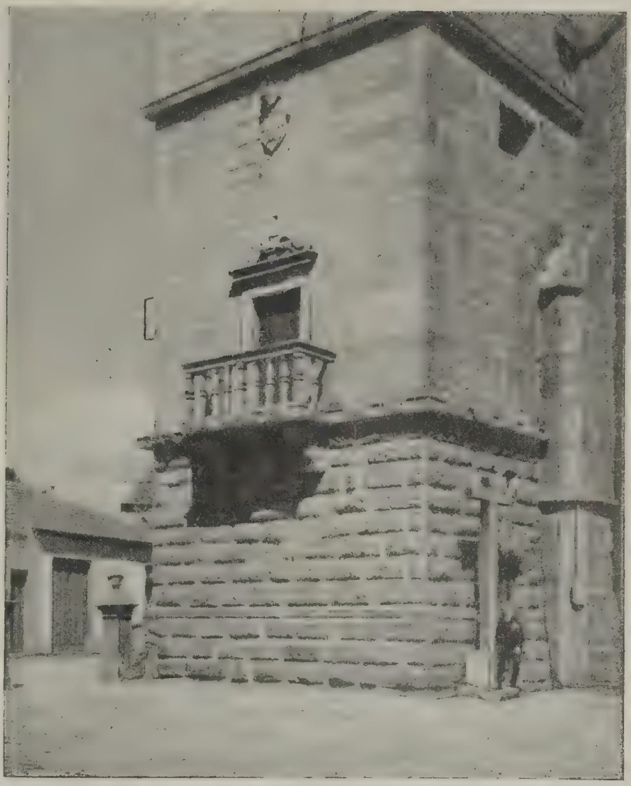
FOUNTAIN IN CONVENT CLOISTER, VILLA DO CONDE



WEST DOOR OF CHURCH, VILLA DO CONDE.



CANDELABRUM IN WEST GALLERY, CONVENT CHURCH, VILLA DO CONDE.

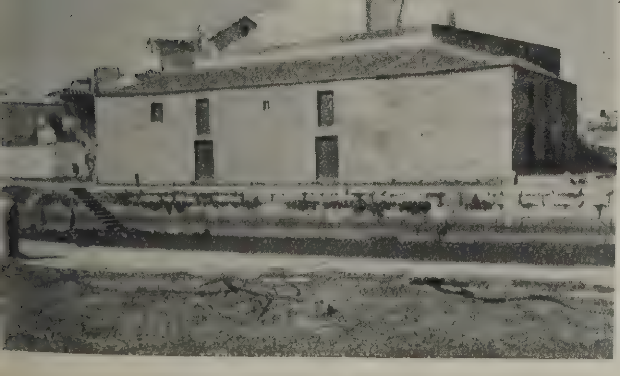


EXTERNAL PULPIT FROM CHURCH TOWER, VILLA DO CONDE.

but it is grotesque rather than beautiful, roughly carved out of granite, apparently in the eighteenth century, and improved rather than otherwise by the boys who gathered round it to be photographed. Round about, however, in battered door or window, there are fragments of the earlier Gothic which are all that could be desired, deliberately destroyed and now going to decay in spite of the clear atmosphere.

Within the church, too, there are still a few fragments which tell of its old importance and magnificence, especially two royal altar tombs with fine recumbent effigies upon them. The one which is illustrated is particularly interesting, owing to the occurrence of cusped panels in combination with Renaissance mouldings, pilasters and ornament; and while the full-size effigy is of the same high rank as similar work of the fourteenth century in Westminster Abbey, the small side panels are equally comparable with the sculpture pictures of Nuremberg—if not a little better than they, for they are not so overcrowded with figures, "The Adoration of the Magi" in the central panel in particular.

The western gallery, with its rotting floor and dilapidated walls, is now a store for carved and plaster images, broken bench-ends and much else that, even if well modelled originally, can now only be classed as rubbish—at any rate, until they have been through a careful process of restoration, including the application of fresh gold and colour. A few fragments are shown in the accompanying photograph, including a triangular-headed candelabrum of rococo design and some small images. This view also shows with some prominence the iron grilles which enabled the occupants of such a gallery to participate in the services in the church without themselves being seen. These are to be found in many Portuguese churches, and could easily have been treated as features of great beauty, but they are invariably plain and very strong.



DOMED CHURCH IN HARBOUR, VILLA DO CONDE.

Besides that connected with the convent, there is another church at Villa do Conde, which, amongst other features of interest, has a fine west doorway having a cusped arch of several elaborately carved "orders" enclosed in a rectangular frame of flanking buttresses connected by a cresting, similar in general outline to other doorways which have previously been illustrated, but if anything richer and better balanced. The idea is at least worthy of attention, for such a composition would harmonise equally well with rectangular windows as with arched ones, and the proportions within the frame, almost exactly 2–1, correspond with those used in much of the best Renaissance door and window openings.

The same church also has a Renaissance tower, whose basement storey is rusticated and separated from the work above by a string moulding whose stones are rusticated and moulded alternately. This string is projected in the centre of its western side upon heavily designed consoles to form the balcony platform to a doorway, the whole composition of which is so good as to suggest that it must have been designed by the same architect as the great dwelling block of the convent.

Close to the waterside there is also another building which calls for more than passing notice, for though it is now enclosed by commonplace warehouses and admission is denied, its rectangular outer and inner walls and its slightly bulbous major and minor domes proclaim the mosque—in spite of the cross as a finial to the major dome. In brilliant white against the deep blue sky, it is a prominent object of very considerable beauty.

Modern Methods in Building Construction.—XL.

By Albert Lakeman, M.S.A., M.C.I.

PARTITIONS.

This subject is not so important as the ones previously dealt with, because the safety or durability of the structure will not generally be affected by the type of partition selected and no serious results are likely to occur from an error of judgment on the part of the designer.

The question of the most suitable type of partition, however, is of some importance, because the internal finishing of the building may be affected by the material employed and cracks or other defects may result if care and experience are not exercised in this section of the work.

The old-fashioned type of partition was timber framed to be either load-carrying or self-supporting, and it was covered with lath and plaster or panelling as required, or in some cases it was constructed with simple uprights or studs carried on a sill piece or sole plate resting on the floor. This type is now practically obsolete in modern work although still carefully detailed and explained in the majority of text-books on building construction.

The modern type is that constructed with blocks or slabs which are specially made for partition building, and the advantages over the old-fashioned type are generally : (*a*) the partition takes up less space as the thickness is reduced, (*b*) less plastering is required, (*c*) the materials are more fire-resisting, and (*d*) generally speaking the initial cost is lower. There are many cases where partitions are required to be of a special character, and the type selected must be one which can be adapted to the special requirements of the case; for example, a sectional or folding partition cannot be constructed with concrete slabs, and timber is essential either for the framing or the whole, in order to give units which can be easily handled. In the case of sectional partitions a light steel frame filled in with thin metal sheets or other light material is sometimes employed, and no hard-and-fast rule can be laid down for partition work which will be applicable to any scheme.

As a general broad division partitions can be divided into types as follows : (1) timber, (2) slab, (3) metal, and (4) reinforced concrete. Under the heading of timber can be included all those in which timber is used for the principal members, whether in the form of studding covered with plaster or sheeting or as framing which is left exposed as in joinery. The slab partitions will cover all those built with blocks or slabs, whether the material used is concrete or terra cotta. Partitions are, of course, frequently built with brickwork, but these can be considered as internal walls and the remarks on brickwork generally will apply to a great extent. Metal partitions as a type can include all those having a metal framework covered with metal sheets, expanded metal or similar material, and, generally speaking, this type will be used in factories and stores rather than in offices or public buildings. Partitions of reinforced concrete, as distinct from slab partitions, are sometimes used in conjunction with reinforced concrete framed structures, when loads can be economically carried by this means, but as a rule they are not suitable as a type for general work on account of the difficulty of making alterations in the interior of a building after it has been in use for some time, when re-arrangements may become necessary.

The selection of the most suitable kind of partition to adopt may involve the consideration of some or all of the following factors, according to the intended usage and nature of the building : (1) lightness, (2) strength, (3) ease of alteration, (4) possible contraction after erection, (5) surface, (6) sound resistance, and (7) cost. The question of lightness will be of importance if the partitions are to be erected on the upper floors of a structure, when it is desirable to reduce the dead weight to be carried to a minimum, and also if a sectional type is necessary to allow frequent alterations in the general arrangements. Examples of a light partition are provided by wood panelling about 2 inches thick (fixed with wood posts some distance apart for stiffening purposes)—either solid for the full height or with the upper part glazed, and also by wood studding covered with asbestos sheets, 3-ply wood or one of the patent composition boards of which several excellent types are on the market to-day. The use of these sheeted partitions has many advantages, among which are the speed of erection, the absence of moisture, dirt and general inconvenience if the building is in use when the partitions are being erected, and the ease of alteration at any future date. In the case of asbestos sheets the thickness should not be less than one-fourth of an inch when the 8 feet by 4 feet sheets are used, and a fixing should be given at each edge, and, if possible, in the centre. The edges of adjoining sheets should be butted, and in the best work a small wooden cover strip is placed over each joint, to keep the sheets from buckling and make a neat finish. If the positions of the joints are set out to give some uniformity of treatment the cover strips will divide the surface up into panels with satisfactory effect at a very low cost ; and the whole can be coloured with a good washable distemper as desired.

In some situations the bottom sheets are liable to become damaged by blows or the stacking of heavy articles against the partitions, this being particularly so in factory work, and it is therefore a good arrangement to make the lower portion, say, 4 or 5 feet high, in brickwork 9 inches thick, and on this place a sill piece for building up the timber studding and sheets for the upper portion.

When a light partition is desirable but a plaster finish is essential, timber studding covered with metal lathing can be adopted, and this will make a satisfactory job if properly executed.

The question of strength will frequently be a serious consideration when the type of partition is being decided, and each particular case will need to be dealt with according to the circumstances of the case. As mentioned above, however, a partition composed of timber studding and asbestos sheets will not be suitable for rough factory work, and a more substantial type should be selected. The strength will also be affected by the length, height and available fixing or support, and while a slab partition may be suitable for a partition 20 feet long by 10 feet high, it would not be strong enough if the length is 120 feet and the height 25 feet unless some reinforcement is provided or intermediate supports are given. The partitions are also called upon in some cases to carry loads, as in the lower floor of a dwelling, and additional strength must be allowed for this. In ordinary domestic work a general rule is to make the lower weight-carrying partitions 4 to 4½ inches thick, when the slab type is used, and on the upper floor this is reduced to 2¼ or 2½ inches unless some special requirement demands a greater thickness. The strongest type of partition will be that constructed with reinforced concrete, but for ordinary work a good concrete or terra cotta block will meet the requirements for strength.

For ease of alteration panelled wood framing will be the most suitable, as it can be taken down without making any appreciable dust and re-erection is comparatively simple. Any type of plastered partition will be unsuitable for work which may require considerable alteration, as the demolition of the work will be practically impossible without making much dust and dirt and the materials taken down cannot be re-used immediately in a new position as in the case of wood panelling.

Blocks and slabs will also be difficult to take down and re-use in the case of offices and similar buildings, and it is essential to use either a sectional partition made with a definite framing and filling or a type composed of all timber or timber backing and sheets that can be released without much damage. The importance of this factor will, of course, depend entirely upon circumstances, and in numerous instances the possibility of extensive alterations will be so remote that it would be unwise to let the type of partition be influenced in any degree by the factor, but it is a point which should be borne in mind for consideration. The question of possible contraction after erection may appear to be rather superfluous at first sight, but upon investigation it will be found to be of primary importance. As an example, the author has seen many cases where partitions have been built with breeze concrete slabs and a finished surface obtained by plastering, and some little time after the work has been finished unsightly cracks have developed which have ruined the appearance of the room entirely. This defect has invariably been due to the use of concrete slabs which have not been sufficiently matured when placed in the work, and during the subsequent drying out of moisture and seasoning of the material contraction has taken place and cracks have resulted.

The remedy for this trouble is obviously the avoidance of any but thoroughly matured slabs; but if concrete slabs are specified it will be impossible for the architect to personally examine each slab and judge the age, and the only protection is the guarantee from the suppliers that the whole of the slabs are of a minimum age. When the building industry is brisk, however, the stocks of slabs are likely to become depleted, and the suppliers are not inclined to lose a large order if it can be secured whether they have available stocks of matured slabs or not, and in consequence the material is made and delivered quickly to keep the contract going, regardless of the effect on the work at a later date.

On one large scheme the author specified breeze concrete slabs for a suspended ceiling, and in order to ensure a satisfactory job the proportions for the mixing were given and also a minimum age for the slabs. The order was accepted by a large firm in London, who agreed to the conditions laid down, and in due course delivery commenced. It was soon discovered, however, that the slabs were so weak that they could not be handled by the fixers, and if placed in position they failed under their own weight. Evidence was produced that the specified mixing had been complied with, but further investigation showed that the slabs had been newly made and insufficient time had been given to the maturing in spite of the conditions under which the order was placed. The whole of the material was condemned, the order cancelled, and another material substituted. This is not an isolated case, as the author has met many examples of poor slabs being supplied which have caused trouble to the architect after the work has been completed, and for this reason the question of possible contraction is an important one. The alternative to the use of concrete slabs is that of adopting terra cotta blocks or some similar material which has been burnt during manufacture, thus avoiding the necessity for maturing. If hollow blocks, made of suitable clay and afterwards burnt in a kiln, are used the quality of the material can be accurately judged in a simple manner, and any risk of contraction is eliminated. This condition has done much to make the burnt partition block very general in use at the expense of the concrete slab type, but the fault lies with the manufacturers of the latter, as it is unwise to specify the use of any material when the quality cannot be depended upon. Good concrete slabs can be supplied, and when properly seasoned they are excellent for building partitions in general work.

Unseasoned timber will also be liable to shrinkage in the work and possible distortion, and when used in the form of panelled framing the appearance will be far from satisfactory. Contraction in the work can be avoided if precautions are taken to specify a reliable material and see that the specification is complied with.

The question of surface is one which will be dependent on the nature of the work, and some materials will require surface treatment, whereas others have a finished appearance without the application of plaster. When a plaster-finished surface is required it will be necessary to use either bricks, blocks or slabs, or, failing one of these materials being suitable, timber studding with metal lathing can be adopted. The time required for the execution of the work, the cost incurred, and the permanency or otherwise of the partitions, are all factors which should be considered when deciding on the advisability or otherwise of a plastered surface.

Another factor mentioned was that of sound resistance, and this has to be dealt with in special cases when a partition is required to separate an office or department wherein highly confidential work is conducted from an adjoining office or space occupied by other persons. To produce the necessary sound resistance it is essential to provide either a perfect void in the interior of the dividing partition or construct the latter with sufficient deadening and sound-absorbing material to prevent the sound waves being conducted through the division. The last-mentioned method is the most reliable one, but it is not always practical to apply it for the whole area of the partition, and, in addition, if door openings are required in the division, each one of these will necessitate special treatment. The author has successfully dealt with problems of this kind by the use of slag wool packing for the solid portions of the partition, this being well rammed in between boards placed horizontally and fixed as the partition is built up; and after this portion has been completed a layer of thick hair felt is placed over the surface of the boarding for the whole area. The finishing material is then applied, this being usually wood panelling worked on one side only, and attached to the necessary uprights in the partition by fixing through the felt layer over the boarding. By this method it is practically impossible for the sound waves to pass through the slag wool, and even at the points of fixing there is no direct conduction of sound through the constructional members as the layer of felt on each side intervenes and acts as a sound - absorbing pad. If it is necessary to have fanlights or any glass in the partition the lights should be double ones, each bedded on to a strip of thick hair felt to break direct contact with the framing. A door opening will obviously be a source of weakness in preventing the passage of sound, and precautions taken in the main portion of the partition will be of little use unless the door is specially treated. The most simple and possibly the most effective method is that of providing double doors, one in each face of the partition, with a thick hair felt strip around the opening for each to close against, thus avoiding direct contact in the sound conducting materials and providing an air space between the two doors. The latter should be fitted with self-closing springs to avoid the necessity of continually walking over to the doors to close them after persons have passed through. These sound resistance requirements may appear somewhat elaborate, but in practice it is frequently very important to ensure absolute privacy, especially when it may be necessary for a person conducting confidential work to speak loudly on the telephone owing to an indistinct line. Sound-resisting partitions are advisable for a bank manger's office where this adjoins the public space, a doctor's consulting room adjoining a waiting room, the managing director's room in a large company's offices, the board room and similar apartments where it is inadvisable to run any risk of confidential matters under discussion being accidentally overheard by persons outside the room.

On the question of cost so much will depend on circumstances that it is difficult to give any definite opinion on the cheapest method to apply. The conditions of support, the height of the partition, the finish required and the permanency of the work must be considered. The lowest initial cost will probably be that required for a simple partition constructed with timber studding covered on one side only with asbestos sheets, while the most expensive will be that requiring special sound-resisting qualities.

The conditions under which the work has to be executed and the quantity carried out, together with the question of repetition, must all influence the initial cost, and any reliable comparative figures are therefore impossible without taking a specific example. A comparison on this basis would be of little value, and, in fact, liable to be misleading if applied to a case when different conditions prevailed. Many architects may consider the question of partitions to be of so little importance that any serious study of the different types is unnecessary, but it is frequently in matters of detail that trouble arises in a building scheme, and a little forethought would generally avoid this trouble.

(*To be continued.*)

OLD HOLLAND. By G. G. WORNUM.

Architecture: A Necessity—or a Luxury?

By H. S. Goodhart-Rendel.

The public lecture delivered at the R.I.B.A. on March 15 was by Mr. H. S. Goodhart-Rendel, who took the above title. In his introduction he amplified it and divided it into three questions: "Is architecture a thing which cannot be done without?" "Is architecture a thing we are going to get whether we can do without it or not?" and, lastly, "Is architecture a thing which can be done without, but which it is natural to want to have?"

The answer to these questions must, he said, depend upon what is called architecture.

In the first place, architecture is not a mere mitigation of the brutalities of building. Its function is not that of clothing and adorning that which would be ugly unadorned. Mr. Bernard Shaw once said that some people regard Art as "a costly ring in the nose of Nature." This is an extremely accurate simile of a common mental attitude. The addition of ornament will often convert comely building into architecture, but with uncomely building no ornament will fuse and no amalgam result. Perhaps the only absolute rule with which all works of art must comply is that of consistency—no work of art can be at war with itself. If the structural design of a building flout the spectator, the attempt of ornament to capture his fancy can but add to the insult offered him. Whatever architecture may be, it is not the jam round the rhubarb.

It is a hackneyed quotation from Sir Henry Wotton that "Well-building hath three conditions: Commoditie, Firmenes and Delight." Essays upon the nature of architecture are apt to open with these words, followed by a statement that architecture and Wotton's word "well-building" are two names for the same thing. With this statement the lecturer did not agree. No room could be much less fit for the purpose of holding a large number of books than the Radcliffe Library at Oxford, yet nobody would say that that majestic rotunda was not a work of architecture. The arcades of the Alhambra at Granada have been falling about ever since they were first rushed up, yet they are one of the architectural glories of Europe. The Radcliffe Library has not "commoditie," and the Alhambra has not "firmenes." Their claims to be architectural objects are based upon their possession of the third and last of the qualities of well-building—that of "delight."

After all, when all is said and done, the fine art of architecture is an art of appearances. This does not mean that it is an art of deceit, an art of fictitious appearances. True appearances are usually more desirable than false ones, but the relation of appearances to reality is governed by considerations not strictly architectural. A theory is held by some people that if a thing be perfectly adapted to its use it is entitled to be called beautiful. Those who talk of the "beauty" of machinery ought to rave about the beauty of the best-designed machinery in the world—the liver and the stomach. But they don't. It would seem that the qualification for being considered as architecture must reside in the attribute of "delight." Without it architecture cannot be. It is of the essence of the art. Not only of the essence, but the essence itself. The stage palaces of Bibiena, of Inigo Jones, or of Mr. Leon Bakst would often be a little inconvenient for even stage courts to inhabit, and in matters of construction their design is frequently—shall one say optimistic? But surely they are works of architecture of a very delightful kind.

To build soundly and reasonably is not to make architecture, although it may be to lay an excellent foundation for it. Our physical needs demand that the shelters we build for ourselves should be strong and convenient, but our emotions hunger for something more than security and comfort. We wish by art or artifice cunningly to intensify the secure appearance of that which we would should be secure, the comfortable appearance of that which we would have comfortable. Having done this, we generally wish also to exercise our fancy in adornment. And it is not until we do these things that we begin to practise the art of architecture.

Architecture is not the art of building strongly, nor that of building cleverly, nor that of building economically—but the

OLD HOLLAND. By G. G. Wornum.

art of building beautifully. It will generally be the better for a foundation of strength or cleverness or economy in building, but it can do without these things; it can exist on canvas and paint. It may occupy itself with bringing out the flavour of good building, it may use good building merely as the framework for elaborate and arbitrary arrangements and decorations, or it may, as with the Arabs, confine its attention to arrangements and decorations, and leave the framework to chance. Thoughtless people constantly tell you that decorated construction is a mark of good architecture, and constructed decoration a mark of bad, a dogma which means either nothing at all or that every traceried Gothic window, every pedimented classical doorway, is a sin against art. Any decoration in three dimensions has to be constructed more or less: you are constructing decoration when you tie flowers and leaves into a garland, you are constructing decoration when you build long stones into your wall and leave them sticking out for the carver to shape into ornaments. Constructed decoration is as much an ingredient of good architecture as is decorated construction. What makes bad architecture is when the construction and the decoration are visibly in conflict with each other.

Architecture, then, if it so choose, may run counter to the facts of building, or may simply ignore them. Normally, however, it will do best if it look among those facts for the raw material of its expression. Most architectural forms are constructive forms glorified, though they seldom have attained to their full beauty before their constructive significance has become obsolete. The Greek triglyph was in origin the end of a beam, but it probably had been a block of marble for some time before it became a really nice-looking triglyph.

The elimination of some appearances and intensification of others which can lift mere building into the estate of architecture is a process very much like that which the actor must practise. Just as the natural symptoms of various emotions, if they be unemphasized by art, may often fail to convey their meaning to the onlooker, so without the aid of architecture a strong building will often give but little idea of strength, a big one but little idea of bigness, a gorgeous one but little idea of magnificence.

The expressiveness of all good architecture is due to the embodiment of forms which symbolise to all of us, whether we are conscious of it or not, ideas which belong not only to art but to life. This may seem a hard saying, but it is no more than an incomplete statement of a well-known psychological truth. Sir Joshua Reynolds says in one of his discourses, "Architecture . . . possesses many principles in common with poetry and painting. Among those which may be reckoned as the first is that of affecting the imagination by means of association of ideas." Sir Christopher Wren wrote in his first tract: "Customary beauty is begotten by the use" (that is, the accustomedness) "of our senses to those objects which are usually pleasing to us for other causes."

The theory thus outlined will account, as will no other, for those general preferences for one form over another which rule the course and the development of art.

When you say that you "like" Adam decoration but do not care much about Saracenic, what do you mean by "like"? Surely that it gives you pleasure. Why does it give pleasure? I believe that it gives you pleasure because it reminds you of things "pleasing to you for other causes." Very likely you are conscious that it does so in superficial ways, but few of us realise the course of those hidden channels in our minds down which the currents of association and memory flow. "I have always liked Jacobean houses," a man will say; "they remind me of my old home." The association is recognised and explained. "I never cared about Corinthian columns," says another man; "I don't know why." Very likely because there are two Corinthian columns, which perhaps he never remembers noticing, at the front door of his dentist.

Personal associations have no artistic function save in so far as they will influence what is called "the expression of individuality." But many associations there are which are racial, and many which are universal. The racial associations account for a great deal of the difference between the Taj Mahal and the Banqueting House at Whitehall (which are about contemporary one with the other), but racial associations do not touch the core of Art. The universal associations, which are probably more inaccessibly buried in his subconsciousness than any others, form the mainspring of man's æsthetic impulse, and the whole human conception of Beauty is probably nothing more than the idea of that which, by means of these universal associations, can afford us pleasure. Conversely, the human conception of Ugliness is probably the idea of that which, by these associations, can give us pain.

There is a beauty proper to art, just as there is a beauty proper to nature. It is the duty of a reasoning being to look for each of these in its appropriate place. Many people admire an old house not for its form and proportion, but for the softness of its mouldering outlines, for the colour of the lichens on its roof, for the accidental irregularity of its composition. But these are beauties proper to nature, and in art are supererogatory. Mouldering outlines and lichens are seen best of all in soft stone cliffs; accidental irregularity cannot be as picturesque in any building as it can be in the rocks of a waterfall. These beauties may be a great alleviation of crude architecture; they may be an adornment of rustic architecture; they may even be no disfigurement to ancient examples of monumental architecture; but they are not the proper beauties of the art and our pleasure in them is, in the strict sense of the word, inartistic.

Architecture is not a necessity, and any attempt to represent it as such will only bring discredit upon those who make it. It is certain that the bare needs of life could be satisfied by civil engineering alone.

It is equally certain that architecture is an inevitability—that the impulse to make it and the impulse to demand it will out. Painters will produce pictures and architects will produce buildings just as determinedly as cats will have kittens, and no artistic Malthusianism will stop them.

Architecture, however, is a thing which man desires, and presumably will continue to desire throughout the ages, and therefore this inevitable art may fairly be regarded as a luxury and not as an expensive nuisance.

Lincoln Cathedral.

An interesting statement of the special repair work done at Lincoln Cathedral during the past twelve months has been issued to the Press by Lord Yarborough, the Lord Lieutenant of Lincolnshire. In the course of it he says:—

Up to the present the consolidation of the walls of the North West Tower has been the object aimed at, and this work has now reached an average height of 80 feet, leaving 127 feet to complete. When full attention has been given to the North West Tower it will be necessary to deal with the West front and the base of the South West Tower, the Central Tower, and subsequently with the North Clerestory.

The mechanical grouting process applied to the North West Tower has been successfully adopted in the repair of many ancient buildings, particularly of the Cathedral at Winchester, but the conditions of the work at Lincoln have been such as to render it advisable to introduce certain devices which had not been tried before in work of this class.

The heart of the walling proved to be so friable that it was soon seen that it would not be possible to cut into its substance to any depth by the usual methods, and yet it was necessary that definite channels should be formed in the heart of the wall into which the cement could be forced by the grouting machine. After various experiments had been made it was found possible to drill holes to a depth of 16 feet in a surprisingly short time with the jackhammers—appliances which are largely used in road repairing work.

The second novelty introduced at Lincoln consists of the insertion of a specially designed "Delta Metal" reinforcing rod in each bore hole. The metal is rustless and cannot therefore endanger the walls in the way that iron or steel rods might do, and it is of equal strength to steel. The result is that the old walls are not only consolidated by the penetration of cement into their interstices, but are also tied together in every direction by a series of reinforced concrete bars of great strength and stiffness. By these methods it is hoped to make the old work solid and fit to carry the great superincumbent weight which has, in the past, caused it to threaten collapse.

It will be of interest to record that the cement used for the grouting is of local manufacture, from the Kirton Lindsey works, and that this material has satisfied the stringent tests which are periodically and regularly applied.

It should also be recorded that happily no accident of any serious character has occurred to those employed upon the work during the past year.

It is estimated that one-half of the work required to be done to the North West Tower has now been completed.

The total costs to January 31 last were:—

	£	s.	d.
Plant	3,141	1	5
Materials	1,794	6	7
Wages	3,490	7	7
	£8,425	15	7

The condition of the Central Tower demands immediate attention, and arrangements are being made for the necessary work to be executed from a hanging scaffold—in order to avoid the enormous cost and great inconvenience of erecting a fixed scaffold from the floor of the Cathedral. It is estimated that the cost of this work will be £11,250.

The Dean of Lincoln has lately returned from a visit of five months to America, undertaken with a courage and confidence which has been the admiration of his friends: during the whole of that time he was engaged daily in lecturing or preaching on behalf of the Cathedral Fund; the success of his self-imposed mission is proved by the fact that he has returned with donations totalling £5,000.

This sum with other contributions of American well-wishers is to be devoted exclusively to the cost of the Central Tower, and it is hoped there may be sufficient to cover the cost of this part, though we cannot reckon on it for certain.

It is estimated that the approximate cost for the completion of the North West and South West Towers and West Front

Screen will be	£14,000
Central Tower	£11,250
North Clerestory of Nave	£5,000
Total	£30,250

If we add to this the money already spent, and a sum necessary to do external pointing and replacing of perished stone and internal work of ceiling, we shall find that £50,000 is likely to prove a correct estimate of the whole sum originally required.

Several of the urban parishes in the county have subscribed to the Repairs Fund, and a great number of rural parishes have sent generous contributions, resulting in a total from all sources of £17,421 11s. 1d.

In the opinion of Sir Francis Fox, the consulting engineer, the extensive works required to be done should be completed by April, 1926, but this will depend upon the necessary funds being forthcoming, so that work may proceed in several parts of the fabric simultaneously.

It will at any rate be a satisfaction to those who have subscribed to know that in the opinion of Sir Francis Fox the work so far effected at Lincoln has been most efficiently and economically carried out under the supervision of Mr. Godfrey, the competent and resourceful Clerk of the Works to the Chapter.

Competition News.

The Crown Agents for the Colonies invite architects in Britain and the British Dominions to submit designs for the new Raffles College to be erected at Singapore as the Singapore Centenary Memorial. Premiums of £300, £200 and £100 are offered, and Mr. John Begg, F.R.I.B.A., late consulting architect to the Government of India, will act as assessor. Conditions and site plan may be obtained from (*a*) the Crown Agents for the Colonies, 4, Millbank, London, S.W.1, on deposit of £2 2s.; or (*b*) on application to the Colonial Secretary, Singapore, subject to corresponding condition.

Mr. Arthur Keen, F.R.I.B.A., has been nominated by Mr. Paul Waterhouse, P.R.I.B.A., as assessor in the competition for new Masonic Buildings, Swansea.

In the recent competition for a nurses' home to be erected at The Retreat, York, the plans submitted by Mr. J. Mansell Jenkinson, A.R.I.B.A., of the firm of Chapman and Jenkinson, 18, Norfolk Row, Sheffield, have been adopted. The cost of the building is estimated at about £12,000.

The R.I.B.A. last week received the following communication from the Hon. Secretary of the Troon War Memorial scheme: "I have submitted your letter of the 5th instant to the Committee. I have pleasure in informing you that they have agreed that the competition should proceed in accordance with Regulations A. to F. of the R.I.B.A., and I have to-day written Mr. Miller, the assessor, advising him."

The will of the late Mr. George Thomas Brown, F.R.I.B.A., of Sunderland, has been proved at £9,973, and Mr. C. F. Armstrong, of Carlisle, architect, at £11,212.

Public Departments and Industrial Art.

In the year 1921 a Conference was held between the British Institute of Industrial Art and the Industrial Art Committee of the Federation of British Industries to consider the best methods of raising and maintaining the standard of design and workmanship in British industries. One result was the formation of a Special Committee of the Institute to consider and report:

(1) As to the nature of the influence exercised on the standard of British Industrial Art by the Departments of Government concerned with the purchase of supplies, the placing of contracts, and the execution of works;

(2) Whether there is any action which the British Institute of Industrial Art can usefully take to co-operate with the authorities concerned in improving and strengthening that influence, having due regard to the interests of national economy.

The Chairman of the Special Committee was Sir Hubert Llewellyn Smith, G.C.B., Chairman of the Institute, and the other members were Sir Kenneth Anderson, Bart., K.C.M.G., Mr. F. V. Burridge, R.E., Sir Cecil Harcourt Smith, C.V.O., Mr. Charles Tennyson, C.M.G., Mr. F. W. Troup, F.R.I.B.A., and Major A. A. Longden, D.S.O. This Committee have now issued a Report which is published by H.M. Stationery Office.

The chief purpose which the Special Committee had before them was to suggest methods by means of which artistic design in Government work and supplies should receive the greatest amount of practical encouragement, and also by means of which the best technical advice should be available to the Government Departments whose duty it might be to draw up specifications for tenders.

Departments such as the Office of Works, the Admiralty, and the Post Office may procure supplies by making them themselves, by purchasing existing stocks in the open market, or by preparing detailed specifications upon which manufacturers may make tenders.

The Committee suggest that in future in all cases in which such a course is practicable a "model" pattern or design should be attached to the specification to indicate clearly to the manufacturer the type of article which it is sought to obtain. This "model" pattern or design and all the terms of the specification should be worked out with the greatest care in consultation with the best technical and artistic advisers available. It should moreover, be clearly set out in the invitation for tenders that competitors are permitted and encouraged to deviate from the "model" by submitting alternative patterns or designs, provided that they comply with all the technical conditions set out in the specification, and also *that the deviations do not involve any increase of price.* In order to ensure the fulfilment of the last-mentioned condition, which (especially in the present state of national finance) is absolutely essential, the Committee propose that all competitors who submit alternative or modified designs should be bound also to quote a price for supplying the article in accordance with the "model" design or pattern, or if in any case a competitor feels unable to tender for the "model" design, to satisfy the Department by other evidence that the modification has not increased the price.

Questions might, of course, arise as to the ownership of the copyright of the variant, in cases in which the deviation from the model design was sufficiently great to entitle it to registration under the Patent and Designs Act. It would be embarrassing to a Public Department to be tied to the same manufacturers for replacement orders over a period of years. On the other hand, a stipulation that the copyright in the variant should belong to the Department might possibly discourage originality. It is understood that under the provisions of Sections 8 and 15 of the Patent and Designs Act, 1919, Government Departments and their contractors have power to utilise any registered design on payment of a royalty, which in case of difference is settled in manner prescribed in the Act. All, therefore, that seemed necessary was to require competitors who submitted variants to state in their tenders whether the designs were registered, and, if so, what royalty they would require for the use of such designs for replacement orders. It would be clear that the satisfactory working of this scheme depended essentially on the contracting authority making full use of the best technical and artistic advice for the purpose, not only of framing the "model" specification, but also of judging the results of the competition, including the deviations from the "model" suggested by the various competitors.

Colonel Johnson, the Deputy Master of the Mint, explained to the Committee the position of the Mint in relation to Departmental proposals for medals, and the scheme then under consideration (which has since taken practical shape) for the constitution of a Committee of techical experts, who should advise the Mint as to all proposals for medals and coins in the future, in consultation with representatives of the Department directly concerned in each case. The Special Committee warmly welcomed this proposal as a great step in advance.

Five different Departments of State require stamps (viz., Post Office, Inland Revenue, Customs and Excise, Ministry of Health, and Ministry of Labour), besides the National Savings Committee. The Post Office places the orders and supervises the execution of stamps of all these Departments. In addition, the Government of India and some of the British Colonies place orders for stamps through the Post Office. The procedure is for the Post Office Controller of Stores to call for designs from certain firms possessing the requisite experience of the very severe technical conditions controlling the designing of stamps. These designs, or a selection from among them, are submitted for approval to the Department requiring the stamps.

The Special Committee suggest for the consideration of the Postmaster-General, the desirability of instituting some special advisory machinery analogous to that recently established by the Royal Mint to deal with the design of new medals and coins. A strong and technically expert Committee of this kind would be able to counteract the danger of restricting the field from which designs were invited and of discouraging promising artists from taking up this branch of art, while affording very valuable assistance to the Postmaster-General and helping to raise and maintain the standard of design of British stamps.

The Committee regard it as being of the highest importance that all contracting Departments concerned with the supply of articles in which the demand of design and craftsmanship is important, should be able to command the services of competent technical advisers both in drawing up specifications and in judging competitive tenders. This would be even more important if their recommendation were adopted for permitting greater elasticity in tendering, and it applied with at least equal force to Departments concerned with the supply of services, e.g., printing. They continue:

"A contracting authority may equip itself for the task of framing appropriate specifications, and of judging results in an intelligent manner, either by including highly competent experts on its staff, or by relying on the advice of outside experts through the medium of one or more of the Advisory Committees. Exclusive reliance on the former method would be very expensive, for, in view of the subdivisions of modern industry, it would need a large number of technical experts to enable the authority to dispense altogether with outside advice. And such experts, if permanently employed, tend gradually to lose their freshness and their live contact with actual industry. We therefore consider that much the most economical and satisfactory method is to take full advantage of the aid, which we are sure would be most willingly given, of a competent advisory body, the membership of which could be varied according to the nature of the subject-matter referred to them.

"It should, of course, be understood that reliance on advice from outside cannot dispense with the necessity of including on the staff of the Department some competent experts who can appreciate and give intelligent effect to the advice thus received.

"The need of systematic arrangements of this kind is well illustrated by the experience of the Post Office described to us by their representative when the Department desired some years back to improve the design of pillar-boxes. The procedure then followed for this purpose would probably not have been adopted had a recognised Advisory Committee been available.

"We may point out that arrangements of the nature we have suggested above have the advantage of affording a solution to the problem, not only of 'mass production' supplies, but also of the individual product of the artist-craftsman. For it is evident that the elastic method of sub-committees with varying membership drawn from the "panel' of the Fellows of the Institute could be applied with equal advantage to ensure that a public authority shall place any orders for individual works of art with the best masters of the craft, and to assist it in framing its specifications and model designs for mass products and in judging the resulting tenders.

"The Committee are of opinion that somewhat similar arrangements might usefully be made with any other Departments and public authorities which may desire them. They realise that if the result of such arrangements should be to involve a great amount of secretarial and other expenses, it may be necessary at a later stage to consider the financial question involved, but at present it seems unnecessary and undesirable to raise the question."

Mr. W. Hanneford-Smith, a director of Messrs. B. T. Batsford, Ltd., the well-known architectural publishers, was recently honoured by being elected a Fellow of the Royal Society of Edinburgh.

The Combined Concrete Co. *v.* Hudson & Kearns.

In an action tried by Sir Francis Newbolt, K.C., Official Referee at the Manchester Assize Courts, on Tuesday, March 13, 1923, the plaintiffs, the Combined Concrete Construction Co., Ltd., of 23, Strutt Street, Manchester, sued Messrs. Hudson & Kearns, Ltd., of Manchester and London, for the sum of £2,464, alleged to be the balance of an account of the plaintiffs for work executed at the defendants' factory at Cheetham Hill, Manchester. The total amount of the account, as passed by the architects, Messrs. Mills & Murgatroyd, was said to be £12,464.

The defendants had paid the sum of £10,000 before the action was commenced, and disputed liability for the remainder claimed, on the ground that the plaintiffs had charged excessively and unreasonably and not executed the work in accordance with the schedule of prices.

It was stated by Mr. Burgess, who opened the case for the plaintiffs, that the contract between the parties consisted of the acceptance by Messrs. Mills & Murgatroyd, on the defendants' behalf, of the schedule of prices submitted by the plaintiffs, and that certain verbal orders were given by the architects as the work proceeded.

The authority of the architects to issue certificates was revoked by the defendants before the final account was delivered. The defendants employed Mr. Percival F. Gleed, F.S.I., chartered quantity surveyor, of Messrs. Gleed, Sons & Co., to measure and value the whole of the work, and on his report the defendants raised objections to the plaintiffs' account. The defendants also counter-claimed for the sum of £4,918 12s. 6d. as damages in respect of a defective floor which the plaintiffs had laid at the factory.

At the sitting of the Court on the second day of the trial Mr. Cyril Atkinson, K.C., announced that the action had been settled out of Court.

The terms of settlement were that the plaintiffs submitted a judgment in favour of the defendants for the full amount of the claim and £5,000 damages on the counter-claim, the latter figure to include costs. It was agreed between the parties that execution should be stayed and the damages reduced to £2,250 if that amount was paid at the times specified in the judgment.

Judgment was accordingly entered for Messrs. Hudson & Kearns, Ltd., on the claim and the counter-claim.

Mr. Eastham, K.C., and Mr. Burgess appeared for the plaintiffs, instructed by Mr. W. E. Laycock, of 33, Princess Street, Manchester; and Mr. Cyril Atkinson, K.C., Mr. Arnold Inman, and Mr. Lawrence Mead, instructed by Messrs. Charles Humphries & Co., of 36, Basinghall Street, London, E.C.2, appeared for the defendants.

Housing Costs in Scotland and England.

A conference representative of Scottish local authorities was held in the City Chambers, Edinburgh, last week, to discuss the question of the proposed Government subsidy (£6 per house per annum for 20 years) for the assistance of housebuilding by private enterprise.

The conference had before them the reports by experts of the Scottish Board of Health and local authorities who considered the question of housing costs in Scotland at the suggestion of the Secretary for Scotland, and decided that £500 was the "all in" price in Scotland for a house of standard type. As the corresponding figure for England is £415, the conference agreed to make a representation to the Secretary for Scotland, urging that the subsidy proposed for Scotland is inadequate, and also to petition the Scottish members of Parliament, asking them to support the claim for a larger subsidy on the ground of the higher cost of building in Scotland.

We append an official memorandum in which the costs of housing in England and Scotland are contrasted.

Increased Accommodation.—In the English A3 type of house the floor area is 810 superficial feet, as against 932 in the average Scottish type of a house of the same accommodation, viz., 4 apartments; while the cubic contents are: English, 10,906; Scottish, 14,027 cubic feet. The height of ceilings in the English type is 8 feet, as against 8 feet 6 inches ground floor, and 8 feet upper floor in Scottish type—Glasgow excepted, where the ceilings are 8 feet 6 inches on both floors. It might be stated that in the average English house the walls are only 6 feet 6 inches high in the upper floor, the remaining height of the room (1 foot 6 inches) being "in the roof." Taking the English cost of the A3 type at £350, this gives a price of 8s. 7⅔d. per superficial foot; on the same basis, the cost of the Scottish house would be £402 11s. 5d., or £52 11s. 5d. in excess of the English house. In the joint minute this figure was stated at £51 17s.

Sarking and Felt.—In the English type no sarking or felt is allowed for, but in Scotland the climatic conditions demand these, and the additional cost involved amounts to £8.

Heavier Roof Timbering.—In the English type the roof is of a lighter and different form of construction, and again to meet Scottish conditions additional cost is involved. Access to the "attic" and outside of roof is also necessary, as well as heavier ceiling joists, spars, oxter pieces, etc., and these items account for £8 4s. 4d., as against £9 3s. brought out in the joint minute.

Three Coats Plaster in Place of Two.—This is necessary owing to the agreement between Scottish master and operative plasterers. The sum of £6 allowed for same is as in the joint minute.

Rough-casting.—In the English type it is not the practice to rough-cast the outer walling, but this is necessary for Scotland, and the additional cost involved is £12 7s. 6d. as against £12 in the joint minute.

Extra Plumber Work.—The methods of carrying out plumber work in Scotland is entirely different from that in England. In the English type no wash-tub or wash-hand basin is taken, while the waste piping and trapping are of inferior description. The scullery sink is also a much lighter and cheaper fitting. The gutters and down-pipes, and lead work, etc., on roofs are also of a lighter nature. Gas-cookers are also taken in a large number of Scottish schemes, and these alone involve a cost of £8; while a lead-lined cistern is also a necessity in most Scottish schemes owing to the properties of the water supply. Taking all these items, they bring out an extra cost of £26 18s. 4d. as against £25 in the joint minute, but this £25 was not agreed to by the Board of Health representatives.

Plastering of Scullery.—In England the sculleries are not plastered, but Scottish conditions demand that they should be, and this involves a cost of £2 7s. 6d. as against £3 in the joint minute.

Concrete Sills.—To meet Scottish conditions heavier window sills are necessary, and the cost of these is £1.

Scotland's Additional Cost.—Taking the above amounts, a total additional cost of £117 9s. 1d. is brought out. To the above amount the Glasgow representatives desire to add £4 10s. 11d., being the cost involved in under-building, which they hold to be necessary owing to the undulation of the average Scottish site as compared with the English. If this sum is added the total additional cost involved will amount to £122. Adding this amount to the English cost of £415, we arrive at a total cost of £537.

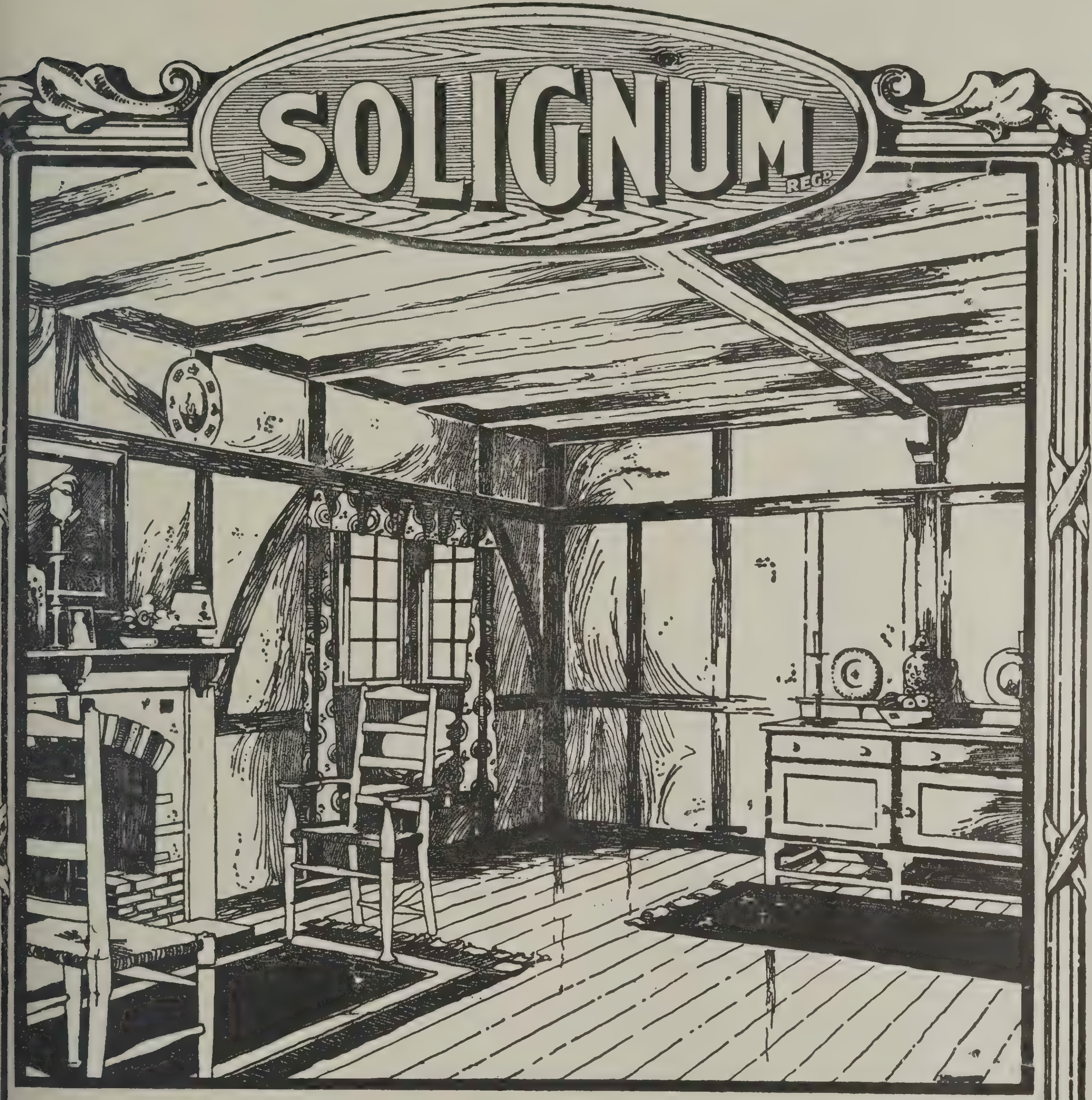
"The Architect" Fifty Years Ago.

March 29, 1873.

Archæology and Architecture.

A lecture was delivered on Thursday evening, March 20, to the members of the Archæological Section of the Midland Institute, by Mr. J. H. Chamberlain, F.R.I.B.A., on "The Influence of the Archæologists upon Revivals of Architecture." Mr. Sam. Timmins presided, and there was a numerous attendance.

Mr. Chamberlain said they found themselves in the presence of two art revivals. They had been in progress some five hundred years, and he proposed to sketch some part of the work the archæologist had done in promoting them, to the best of his ability, or in spoiling them, to the best of his ability, which latter he had managed far more successfully than he had the former. The two revivals had taken place respectively in Italy and England. The former was known as the Renaissance, while the English was not known by any particular name, but was a revival of Gothic. The Italian revival had lasted five hundred years, and it had done, for good or evil, a great deal of work. It had covered the whole of Europe with buildings, influenced painting, and sculpture, and as many thought, had debased architecture, spoiled painting, and utterly ruined sculpture. It would have utterly ruined painting as well had any old pictures been left. The causes of the revivals in England and Italy were somewhat dissimilar. In England at the time we may be said to have had no art of our own, but in Italy the reverse was the case. The Italians were surrounded by works of their own, more or less good, and it was very generally considered there was no art era which excelled the Early Italian. Now the Italian was to a very great extent a literary revival, owing to the discovery of ancient manuscripts which directed attention to the works of ancient time. In neither the English nor Italian revivals were the old fires quite extinct, although they could be still considered revivals. There had been a great difference in the way the two revivals had been used. The English revival had been confined to England, while we had imported the Italian revival wholesale, and a great majority of our buildings had been erected according to their principles. In England the archæologist could lay claim to being the principal cause of the revival, while in Italy it was the man of letters. The archæologist was human, and it was natural for a man when he admired to imitate, and the great difference in the good or ill effect of the archæologist's work was the way in which he produced that which he admired. What was wanted in the revival of ancient art was some good sharp wholesome criticism. Mr. Chamberlain concluded amid applause.



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Solignum simply applied cold to UNPAINTED wood penetrates the fibrous cells, destroying and preventing the development of destructive germs. It is a certain preventive of dry rot. Solignum imparts a rich stain to the wood, emphasising its natural grain, with colours soft and pleasing.

It is permanently decorative and preservative; cheaper than paint; lasts longer and costs less to renew.

Use EXTERIOR Solignum for doors and gables, fences, gates, poultry houses (as a preventive of red mite), and outbuildings. Use INTERIOR Solignum for all interior woodwork.

It is the Ideal floor stain as it does not rub off, show scratches, or wear bare; and can be varnished, wax polished, or cedar mopped.

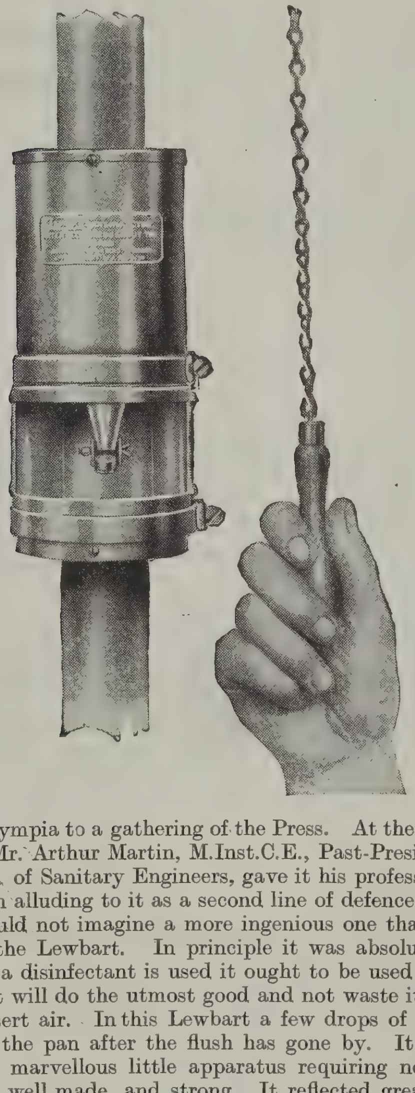
Please write for colour sheet of its 13 colours (Browns, Reds, Greens, Yellow, and Blue), London Depot, 205 High Street, Southwark, London, S.E.1., mentioning "The Architect."

MAJOR & COMPANY LTD

The Lewbart Disinfector.

In our issue of March 2 we gave some account of a disinfector for use in connection with water-closets which had arrived in this country from South Africa with a big reputation for efficiency. Like many other immigrants, it became considerably improved after contact with our longer experience and high standards. The resultant made its bow to the English public at the recent Ideal Home Exhibition, where it attracted marked attention to the stand of the Lewbart Manufacturing Co., Ltd. This Lewbart Disinfector, it may be remembered, is an extraordinarily compact, simple, and automatic device which is clipped over a rubber joint on to the down pipe of the w.c., after a hole has been cut in the pipe. When the user of the lavatory pulls the chain he automatically releases five drops of a powerful disinfecting fluid. This again automatically mixes with a quarter of a pint of water. The mixture descends into the pan *after* the flush has taken place, and there remains, disinfecting the lavatory and sweetening the atmosphere, until the next user comes along.

A convincing demonstration of the Lewbart was given last week at Olympia to a gathering of the Press. At the subsequent luncheon Mr. Arthur Martin, M.Inst.C.E., Past-President of the Institution of Sanitary Engineers, gave it his professional benediction. In alluding to it as a second line of defence Mr. Martin said he could not imagine a more ingenious one than that provided by the Lewbart. In principle it was absolutely sound, because if a disinfectant is used it ought to be used in the way in which it will do the utmost good and not waste its sweetness on the desert air. In this Lewbart a few drops of disinfectant remain in the pan after the flush has gone by. It was, in his opinion, a marvellous little apparatus requiring no attention, fool-proof, well made, and strong. It reflected great credit on the manufacturers. But, added Mr. Martin, the proof of the pudding was in the eating. The fact that shrewd business men having tested one were so pleased that they ordered many more was eloquent of its merit. In conclusion Mr. Martin humorously pointed out the danger in connection with the Lewbart, that users of the w.c. might become absorbed in contemplating it and they might remain an unconscionable time in possession of the closet. Likewise the water companies might object if each user flushed the cistern half a dozen times for the pleasure of seeing the disinfector function.



The late Mr. James Philip Moore, F.R.I.B.A., of Eltham, Kent, left his estate of £17,000 to his nephews and nieces, other than his nephew, Vice-Admiral Bernard Currey, or his children, "they being by his own creditable acts quite sufficiently provided for." He also wrote in his will: "I also except and exclude any persons who shall have married his or her first cousins."

General.

The tender of J. W. Ellingham, Ltd., Dartford, amounting to £4,970, has been accepted by the local Guardians for alterations and additions to their board room and offices at West Hill. The architect is Mr. Gerald E. Burgess, M.S.A., of Dartford.

Although they are about to apply to the Ministry of Health for sanction to sell 54 houses at Pennygate, erected under the Government scheme, the Spalding Urban District Council has instructed the architect to draw up plans for further houses.

Professor Percy Dearmer will begin his lectures at King's College, London, next term in the Great Hall, on Tuesday, May 1, at 5.30, and will continue each Tuesday until June 5. The subjects will include a lecture on the Early Masters from Giotto to Botticelli, and there will be separate lectures on Titian, Tintoret and Veronese.

The Great Western Railway Co. are about to place contracts for building work amounting to £270,000. Among the works are a new engine erecting shop at Caerphilly (£160,000), a locomotive lifting shop at Cardiff (£14,000), a carpenters' shop at Swindon (£28,000), a mileage depot at Ashley Hill, Bristol (£28,000), station improvements at Maidenhead (£16,000) and Pwllheli (£6,500).

The Uxbridge Rural District Council have revived the question of a sewerage and sewage disposal scheme for Harefield. The question has been considered for several years, and the scheme was prepared and turned down early last year owing to the heavy cost. The Council have now asked W. H. Radford & Son, of Nottingham, to meet the Parish Council and discuss the matter.

Messrs. William Moss & Sons, Ltd., of London, Liverpool and Loughborough, have received the contract for the erection of a theatre to be erected partly on the site of the present Empire Theatre in Lime Street, Liverpool, and partly on the adjoining site. The new theatre, for which Messrs. Milburn, of Sunderland, are the architects, will be a remarkably fine structure, with seating accommodation for no less than 3,300 people.

The National Art Collections Fund has purchased for the nation two of the bronze figures by Degas at present being shown in the exhibition of the famous French artist's sculpture at the Leicester Galleries, Leicester Square. They are No. 7, "Grande Arabesque, troisième temps," and No. 14, "Danseuse mettant son bas." The National Gallery of Scotland has acquired a cast in bronze of No. 37, "Etude de nu pour la danseuse habillé."

The Surveyors' Institution has addressed a communication to the Minister of Health urging that, in view of the necessity of removing any check upon building during the existing shortage of housing accommodation, the provisions of Section 25 of the Housing, Town Planning, etc., Act, 1919, under which local authorities are empowered to relax building by-laws where the circumstances warrant their so doing, should be extended for a further period of twelve months.

At Edinburgh Dean of Guild Court, on the 8th inst., a warrant was granted to the trustees for the Hospital, Spring Gardens, Edinburgh, to erect a maternity hospital facing the King's Park. The hospital will form the Dr. Elsie Inglis war memorial and will cost about £30,000. The Royal Victoria Hospital for Tuberculosis were granted a warrant to erect a laboratory and X-Ray block at Smithfield, Liberton. The cost of the building, exclusive of the apparatus and fittings, will be about £6,000.

The total number of persons unemployed in the various branches of the building trade in Great Britain on February 26 last was 136,261, states the Labour Minister in Parliamentary Papers. Assuming they were drawing the same average per head as unemployed workpeople generally, the weekly amount drawn by them was about £93,800. The details of unemployed are: Carpenters, 13,876; bricklayers, 7,222; masons, 2,017; slaters, 757; plasterers, 2,603; painters, 27,545; plumbers, 4,639; labourers of above trades, 59,553; all others, 18,049.

Sir J. Baird (First Commissioner of Works), in reply to questions in the House of Commons recently, said the huts on the top of the Admiralty Arch would be demolished as soon as other accommodation could be provided for the occupying staff. A rearrangement of Admiralty accommodation was now under consideration with this object in view. There were no funds available for substituting iron gates for the wooden erection at the entrance to Downing Street.

An Inigo Jones house known as Ribton Hall, on the banks of the Derwent, at Camerton, near Workington, built in the reign of Charles II., which has for a century been used as a farmhouse, is to be pulled down shortly, Lord Lonsdale, the owner, having come to the conclusion that it is structurally unsafe and cannot be repaired. It contains some choice oak and chestnut panelling.

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THE ARCHITECT

APRIL 6, 1923.

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Architecture a Luxury—or a Necessity.

We are not sure whether Mr. Goodhart-Rendel's lecture on the above subject, able and well thought out as it undoubtedly was, quite answered the question he raised. We should have thought it obvious that no one who gave a moment's consideration to the matter could assert that architecture was a necessity, while it is evident that building is a necessary concomitant of civilised life. If we ask ourselves what the public want and must have in building, the answer is the convenient arrangement of spaces devoted to special uses which must be grouped together by constructional methods and which result in buildings. Further, it is fairly obvious that as building is a complicated and not a simple matter, it can be best provided by those who possess expert knowledge and experience. If architects as a class have this knowledge, and the public employs them to use it in its behalf, the architect becomes a necessary agent employed to give the public what it requires. In a great number of cases if the architect considers he is a direct agent to his employer solely guided by his knowledge of the employer's wants, the product of his work may not enable him to produce a fine architectural result. In other cases, without departing from the conditions imposed on him, he may be able to produce what his client wants and at the same time do work which may fittingly be entitled architecture. If he does so, the public will in many cases recognise that he has given it not the bare requirements asked for, but that additional thing which is productive of delight.

The architect too frequently works backward from results—that is, he has in his mind certain associations with the architecture of the past which give him delight—and when meeting his client's wishes he too often endeavours to introduce what was not included in the instructions given him; in other words, he tries to satisfy two conflicting sets of requirements, and he has complicated his problem in a manner which renders all solution difficult and sometimes impossible! His work would be easier and in most cases better were he to restrict himself more to his province of a skilled agent through whom the client's requirements could be satisfied.

Some weeks ago Mr. Gilbert Frankau discussed the average man's interest in architecture at the Architectural Association, and pointed out that what materially concerned him was not the quality or excellence of great public buildings, but the smaller ones connected with the houses in which he lived. The truth of this is brought home to us almost daily by what we read in the press and what we hear in our daily lives, and this should convince us that the most important phase in building at the present time is the satisfactory production of small houses, and indicates the direction in which architects can make themselves most indispensable to the public. If they can once show that the public can get more in the way of convenience and comfort by employing architectural advice for the average small house than they can by dispensing with it, the architect's position will be secure. If they can secure a large proportion of the smaller commissions they may rest assured that they will obtain the rest, but if they cannot succeed in convincing the public that the average architect's house is a better and more convenient one than that erected without his help, his position will be an insecure one.

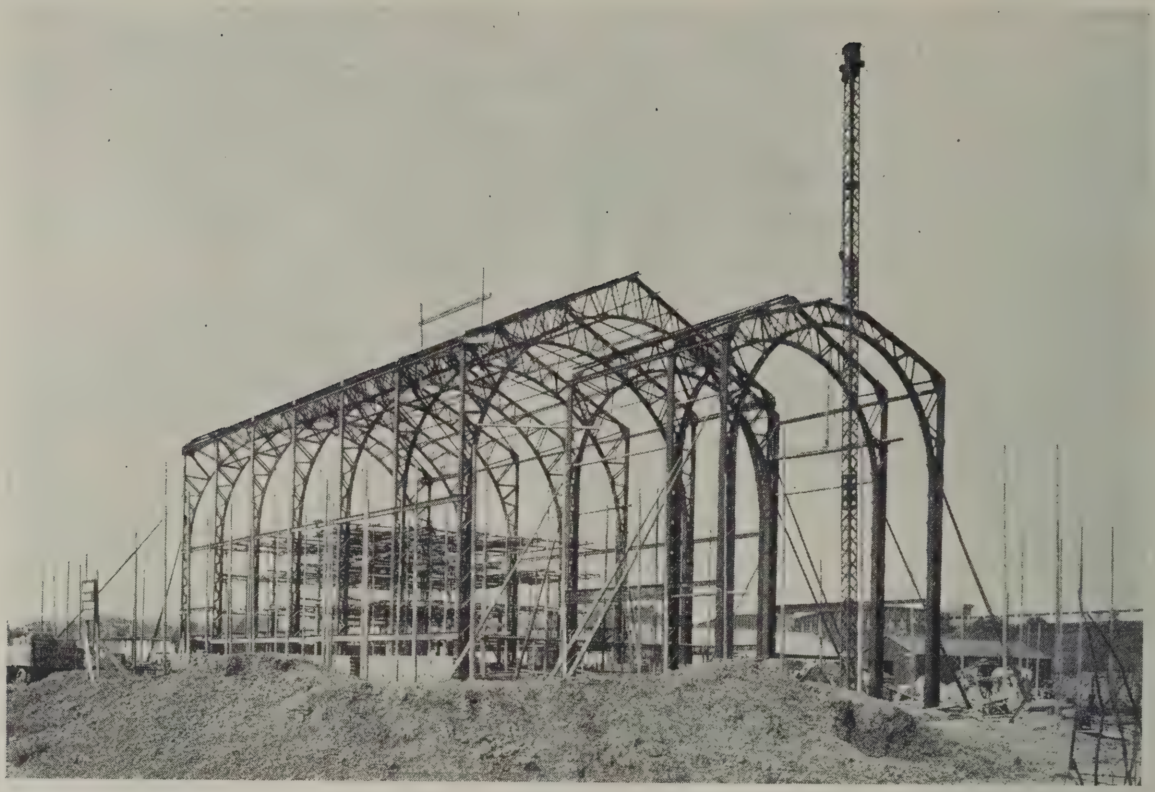
Wherever the restrictions—which at present interfere with the operation of the law of demand and supply in building—are relaxed, there must be a great volume of small house building, and the architect's value in the eye of the public will be accurately evidenced by the proportion of the work which he is able to secure for himself.

The tendency of the profession to seek means of closer union within itself in order to procure public support or recognition has to our mind distinct dangers. The more we are recognised as a class apart with independent aims and ambitions, the more we may expect to see these claims and ambitions examined with a critical and unsympathetic eye. The more, on the other hand, the architect is merged in the general body of the public with whom he is brought into contact, the better he will understand and be understood by them. He will be better protected by friendship and understanding than he ever can be by the most rigidly interpreted code of professional rights, and he will do wisely to discount the possibility of strengthening his position with his clients by insistence on the æsthetic bearings of his occupation. His position will be assured if he is recognised as being a skilful planner and a good business man, and last, and by no means least, a pleasant companion.

Mr. W. G. Newton said at the Architectural Association that housing was only a small part of an architect's work and occupied little space in his thoughts. To say this is to disregard the fact that it occupies most people's minds to the exclusion of the bigger subjects which were alluded to by Mr. Newton. Without being unduly pessimistic, we look forward to an era in which there will be less important buildings of a public nature than those of the last fifty years, and in which the relative importance and interest of different classes of building have become inverted by circumstances.

This may have a curious influence on the way in which the larger buildings are regarded and criticised at the present time. Despite the notice given to them by a section of the press, we should be inclined to say that there never had been a time when large and important works attracted less attention. People are more and more engrossed in their private interests and concerns, with the result that buildings are less noticed than they were twenty years ago, and both architects and clients are largely unfettered by any necessity to consider public opinion.

We have entered upon a drab era like that which followed the Napoleonic Wars, and one in which the average man is too much occupied in his immediate personal problems to take much notice of the larger issues which are so feelingly alluded to in our professional addresses.



SKELETON STEELWORK FOR ST. CATHERINE'S CHURCH, HAMMERSMITH, W. Robert Atkinson, F.R.I.B.A., Architect.

Our Illustrations.

ST. CATHERINE'S CHURCH, HAMMERSMITH, W. Robert Atkinson, F.R.I.B.A., Architect.

The following is a list of the various specialists connected with the erection of this building, which is the daughter church to St. Catherine Coleman, Fenchurch Street, E.C. :—

Builders and Contractors.—John McManus, Ltd., 237, Hammersmith Road.
Bricks.—Messrs. Eastwoods, Ltd.
Casements.—R. E. Pearse & Co.
Pantiles.—Wm. Saint, Ltd.
Constructional Steel.—A. Dawnay & Sons.
Door and Window Furniture.—James Gibbons, Ltd., Wolverhampton.
Electric Light Installation.—Grierson, Ltd.
Special Electric Fittings.—Louis Dernier & Hamblyn and Heal & Son.
Woodflooring.—Stevens & Adams.
Heating and Ventilation.—J. Jeffreys & Co.
Pews.—Hampshire Workshops.
Marble Work.—Fenning & Co.
Ornamental Metal Work.—Thos. Elsey, Ltd.
Plaster Work.—Samuel Wright & Co.

Notes and Comments.

Commercial Buildings.

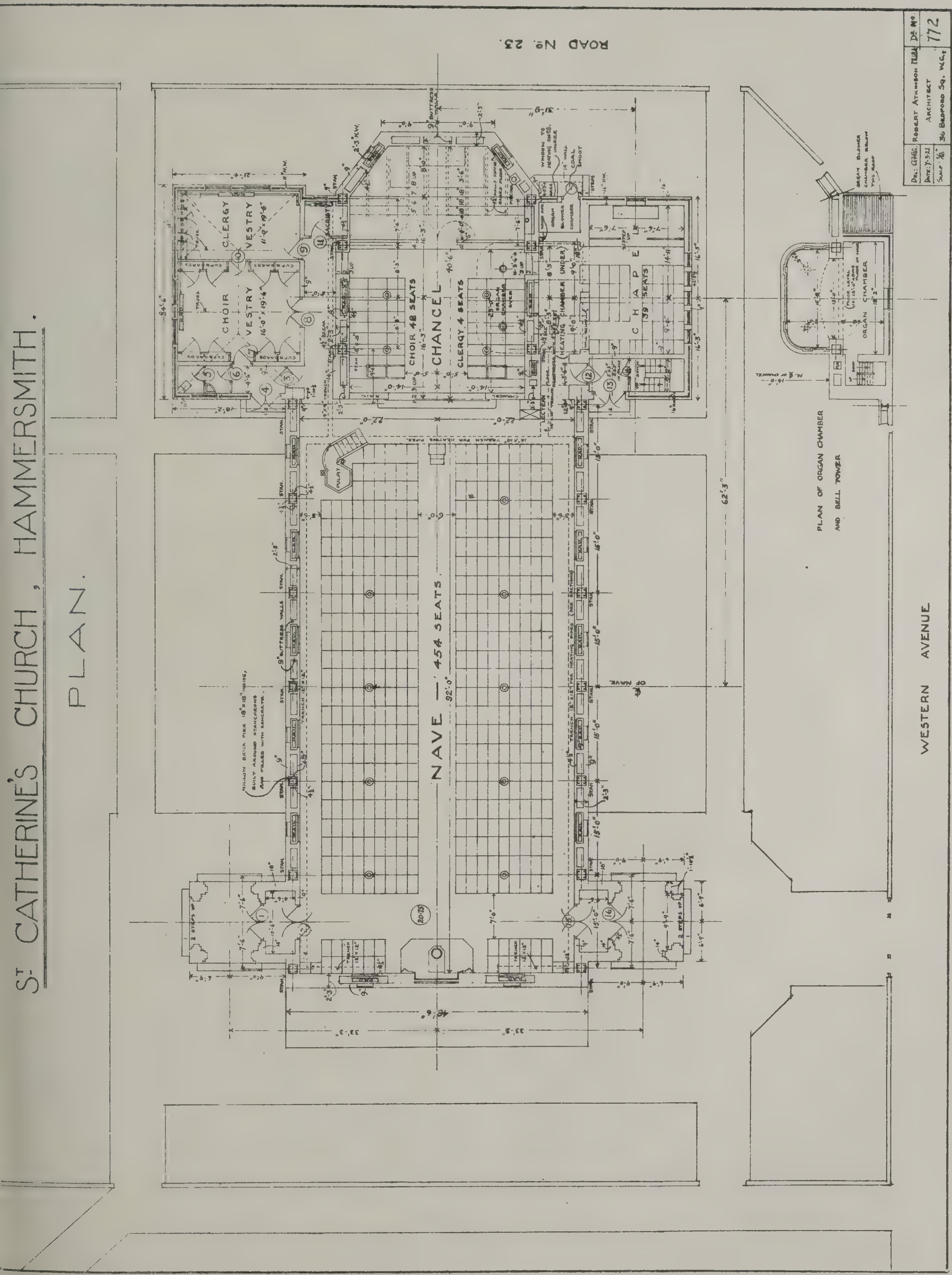
We quite agree with Mr. Trystan Edwards in his reflections on the great commercial buildings which threaten here and in America to replace public buildings as the most prominent features in the modern town. Whatever their architectural merits may be as buildings, we think that great shops like that of Selfridge's are to be regretted, and we should like to see the institution of a sumptuary law as applied to buildings which would debar the shopkeeper from overwhelming other buildings in scale or magnificence. But this is clearly impossible, at any rate for many years to come, and meanwhile our cities will inevitably become vulgarised, for we hold with Mr. Edwards that these buildings are vulgar, however refined their architectural treatment may be. The remedy is, of course, the treatment of certain parts of a city devoted to purposes of commerce as single units of design, parts of which are occupied by individual firms. But the remedy, if there is one, will probably be a financial one, for if it is discovered that advertising in brick and stone in immense masses no longer gives an adequate return, the confusion between the relative importance of public and commercial buildings may cease, and at a future date our commercial streets may assume a new dress and the real distinction between public and private buildings may again be reasserted.

How Profiteering must be Fought.

Under the above title the "Evening Standard's" Political Correspondent writes an article which contains the very sensible suggestion that "The assurance that decontrol is coming in at a certain date is in itself a very considerable stimulus to building activity and an over-generous attitude on the part of the Government is more likely to impede the provision of houses by inflating prices than to advance it. The matter is, in short, one for very careful consideration, and no subsidy should be given without very substantial grounds for the belief that it will be earned." We believe the Government might well consider their own position in the matter. During the war and, unfortunately, after the war, the whole of the Departments were largely increased, to the advantage of a number of new Civil Servants, often in highly paid positions. During the war the public acquiesced in the inevitable expenses incurred on the ground of necessity, but since its termination it is most anxious that the general level of taxation should be reduced, and is no longer inclined to suffer the unnecessary inflation of the Civil Service with patience. Let the Government show that it can deal with those in its employ who are profiteering at the expense of the nation, and postpone the more difficult and perhaps impossible task of endeavouring to interfere with those who are, after all, in no privileged position, but have simply used their opportunities as all of us can do. That their action has been unfortunate in the interests of the public may be true; it may also be unwise from a more narrow basis of personal interest. The real remedy is, however, more competition and not Governmental action.

The Decontrol Bogey.

We are inclined to think that the whole body of politicians and most of the press have gone mad over the



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ROBERT ATKINSON, F.R.I.B.A., ARCHITECT.

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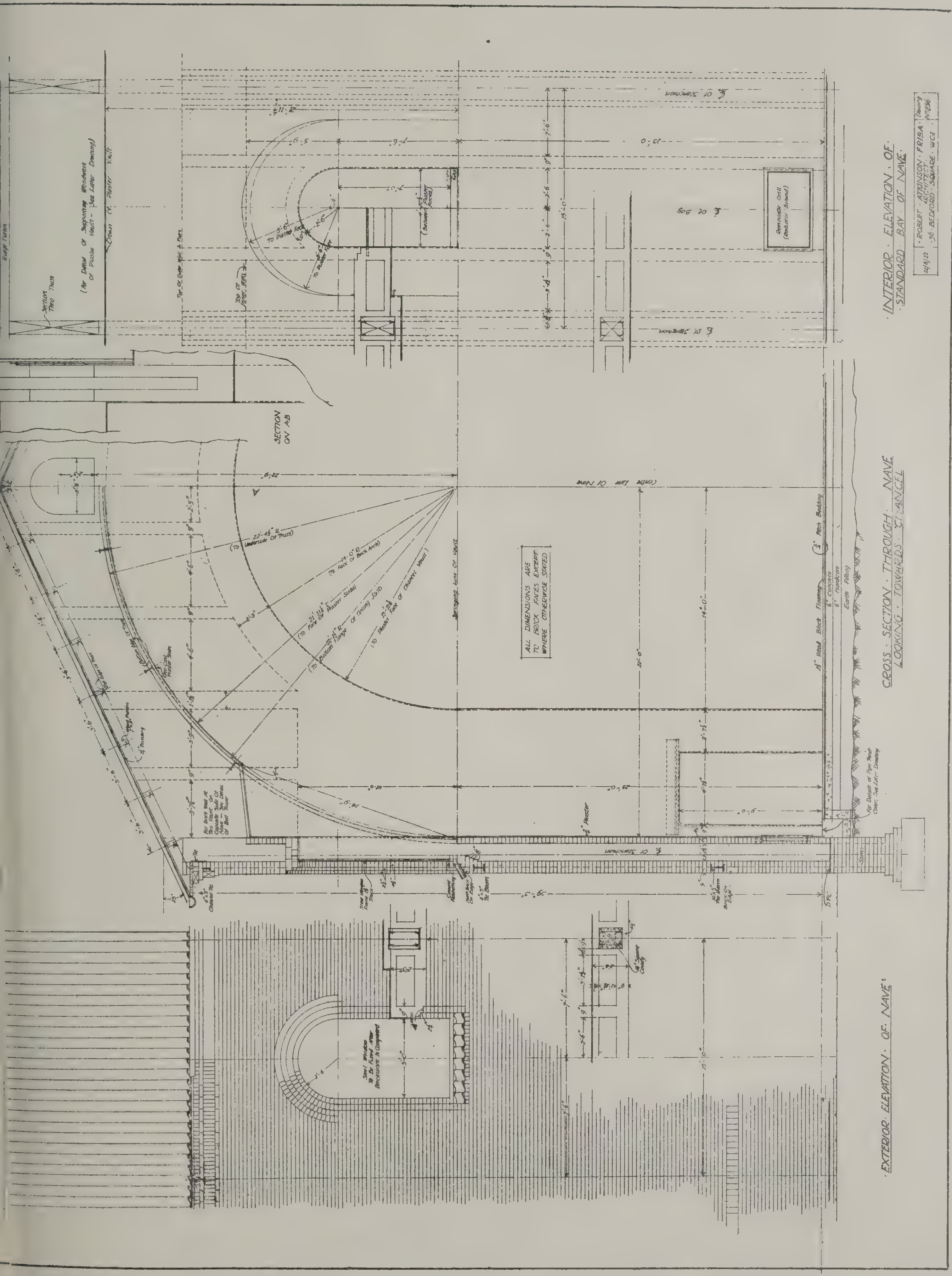
·INTERIOR · ELEVATION · OF·
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Drawing No 836
℄ of Stanchion
℄ of Bay
Springing Line of Vault
Centre Line of Nave
Section Thro Truss
Crown of Plaster Vault
Steel Window to be Fixed After Brickwork is Completed
Wood Block Flooring
6" Concrete
6" Hardcore
Earth Filling
Plaster
D.P.C.

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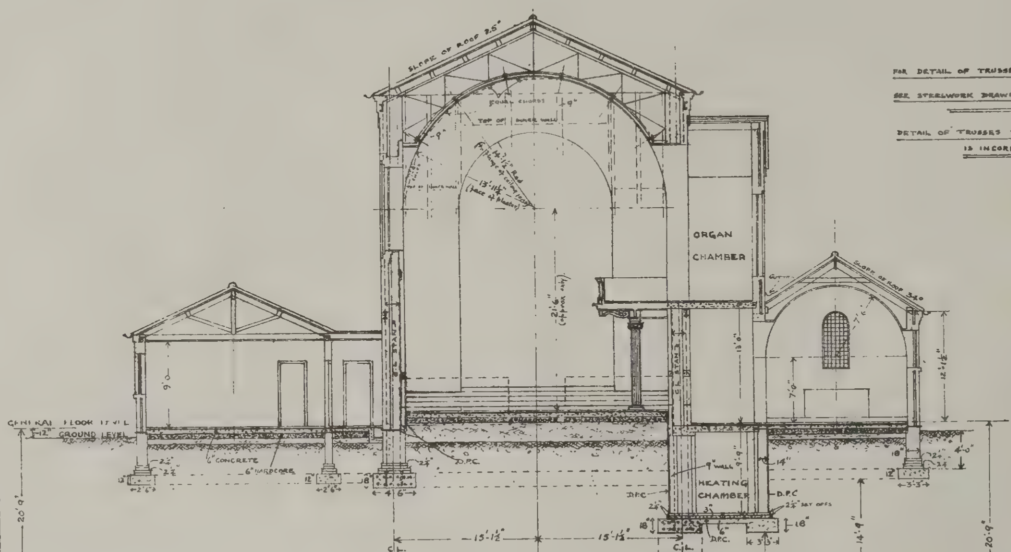
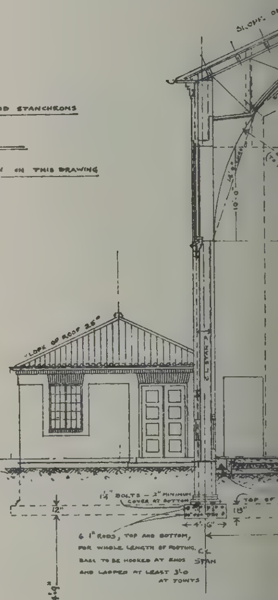
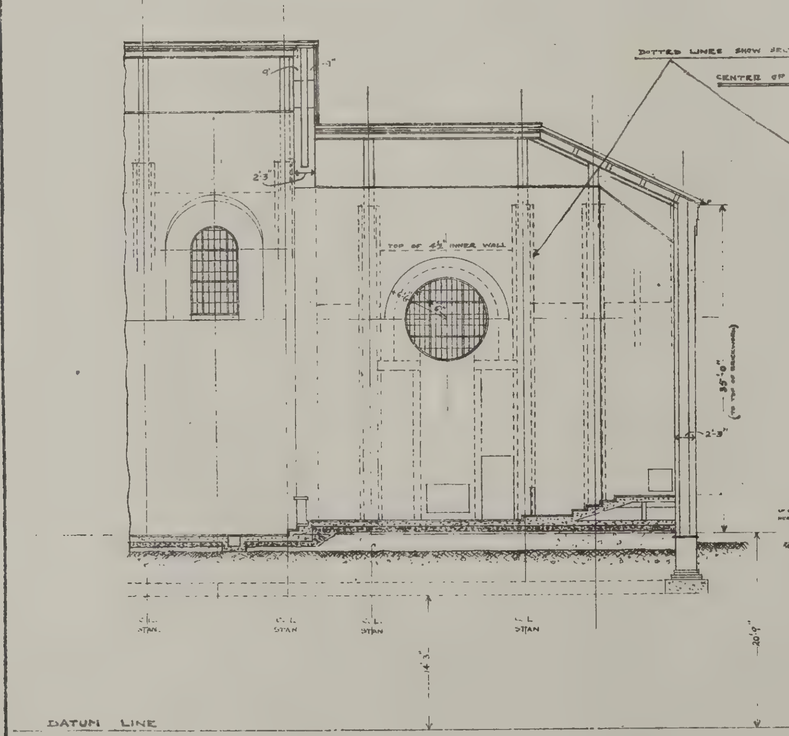


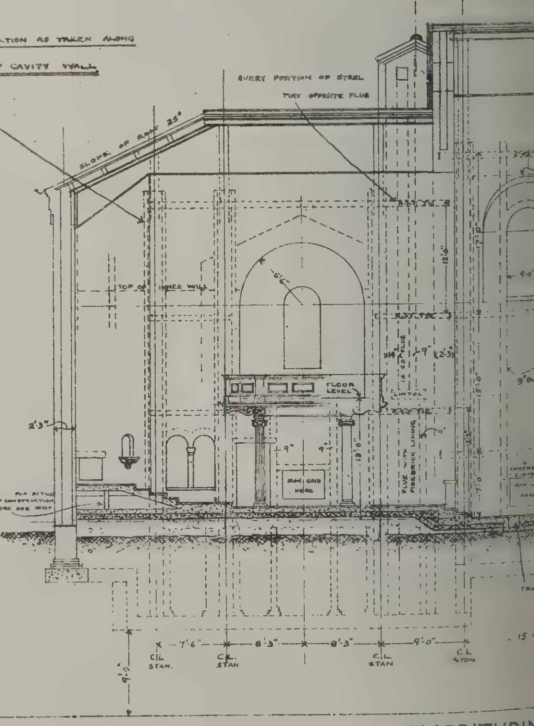
SECTION THROUGH CHANCEL.


SLOPE OF ROOF 25°
1½" BOLTS
6 1" RODS, TOP AND BOTTOM, FOR WHOLE LENGTH OF FOOTING. BARS TO BE HOOKED AT ENDS AND LAPPED AT LEAST 3'-0 AT JOINTS
C.L.
STAN
14'-9"

SECTION



LONGTDL. SECTION LOOKING NORTH.



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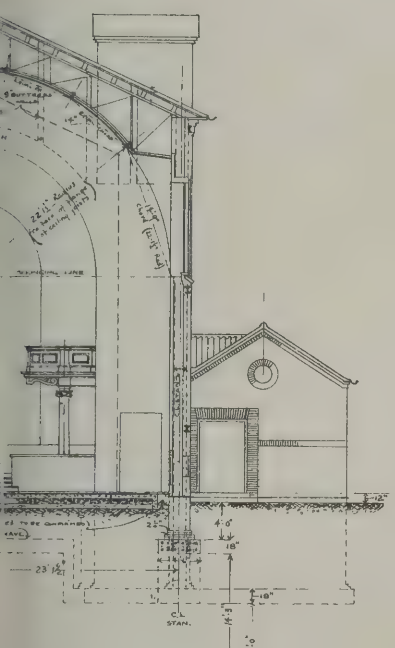
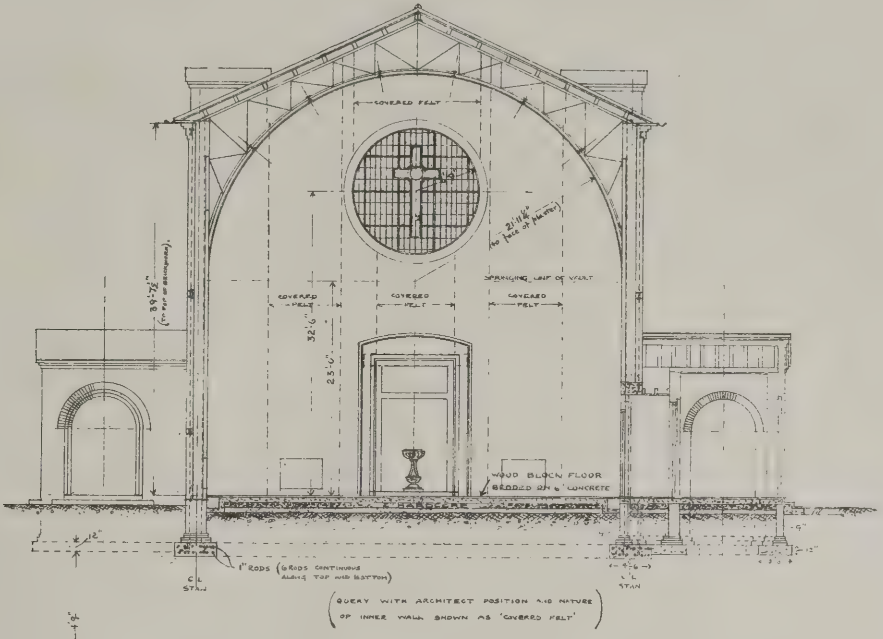
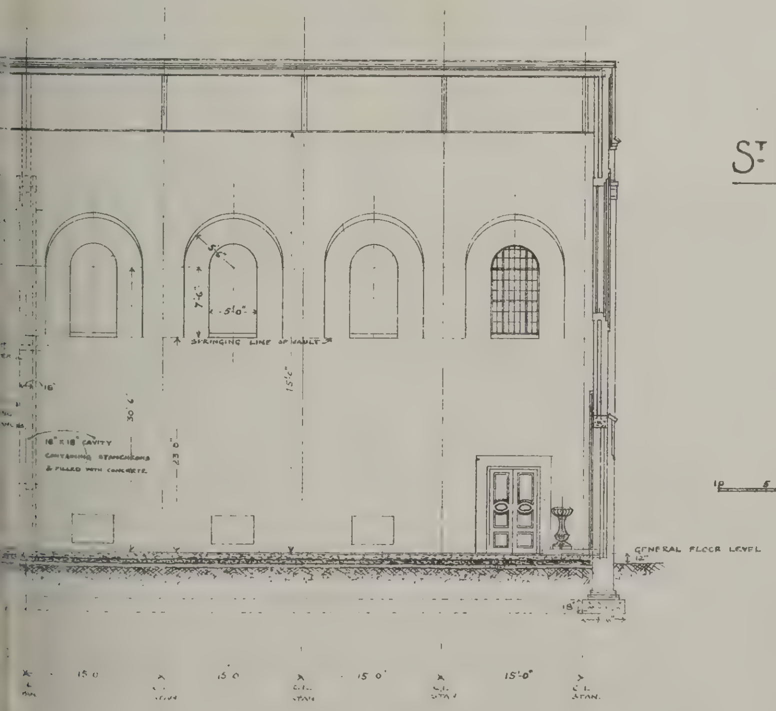
ROBERT



VE, LOOKING EAST.


COVERED FELT
21'11¼" (to face of plaster)
SPRINGING LINE OF VAULT
COVERED FELT
COVERED FELT
COVERED FELT
39'-7½" (to top of brickwork)
32'6"
23'0"
WOOD BLOCK FLOOR BEDDED ON 6" CONCRETE
12"
1" RODS (6 RODS CONTINUOUS ALONG TOP AND BOTTOM)
C.L. STAN
4'-6
C.L. STAN
9"
12"
4'9"
(QUERY WITH ARCHITECT POSITION AND NATURE OF INNER WALL SHOWN AS 'COVERED FELT')

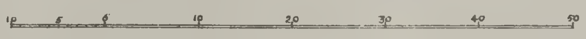
SECTION THROUGH NAVE, LOOKING WEST.



N LOOKING SOUTH.

ST CATHERINE'S CHURCH
HAMMERSMITH.

SECTIONS



SCALE OF FEET.

DEL.: a.f.b.a.	ROBERT ATKINSON F.R.I.B.A.	773
DATE: 7.3.22	ARCHITECT	
SCALE: ⅛"	36 BEDFORD SQUARE W.C.1	C

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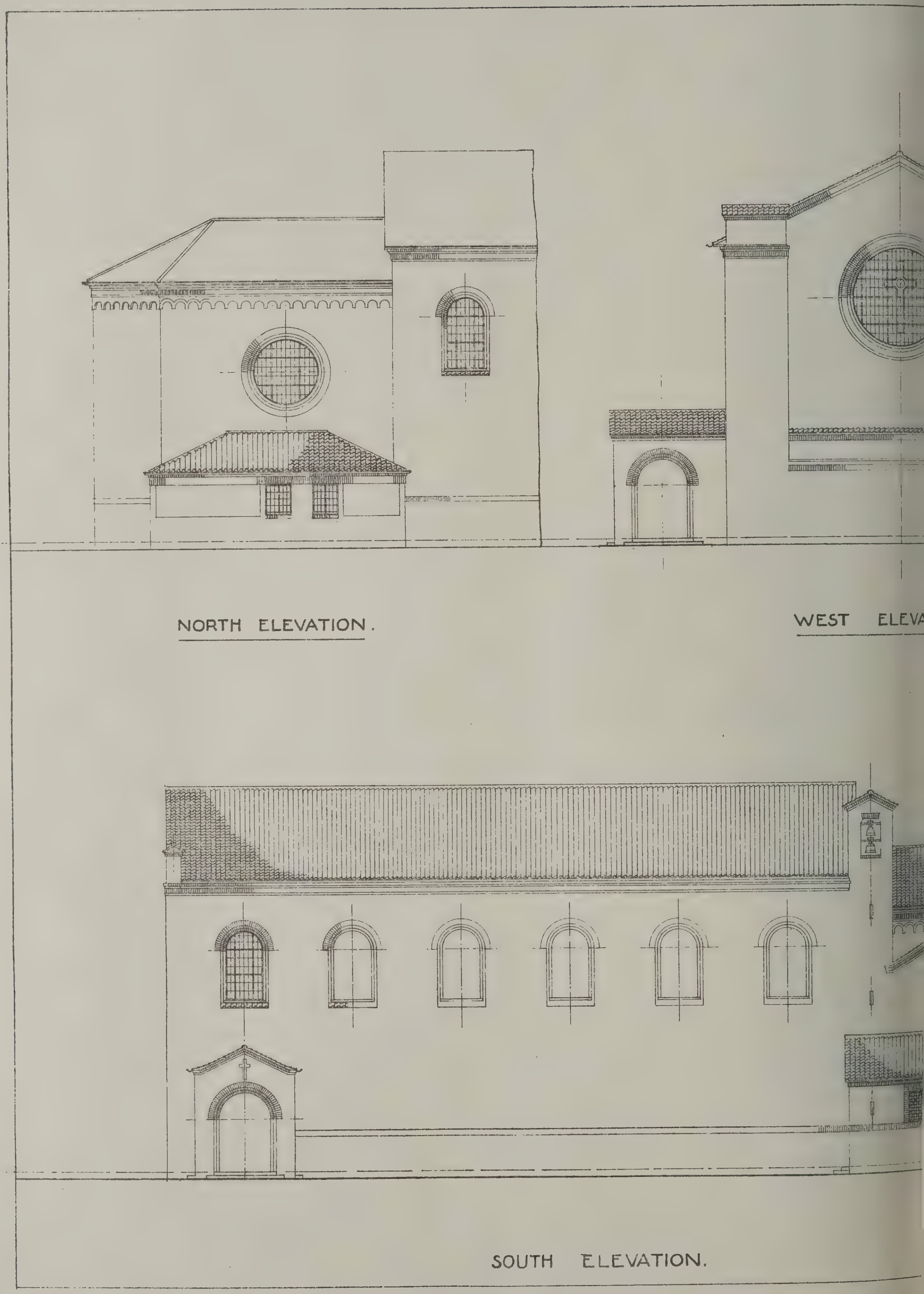

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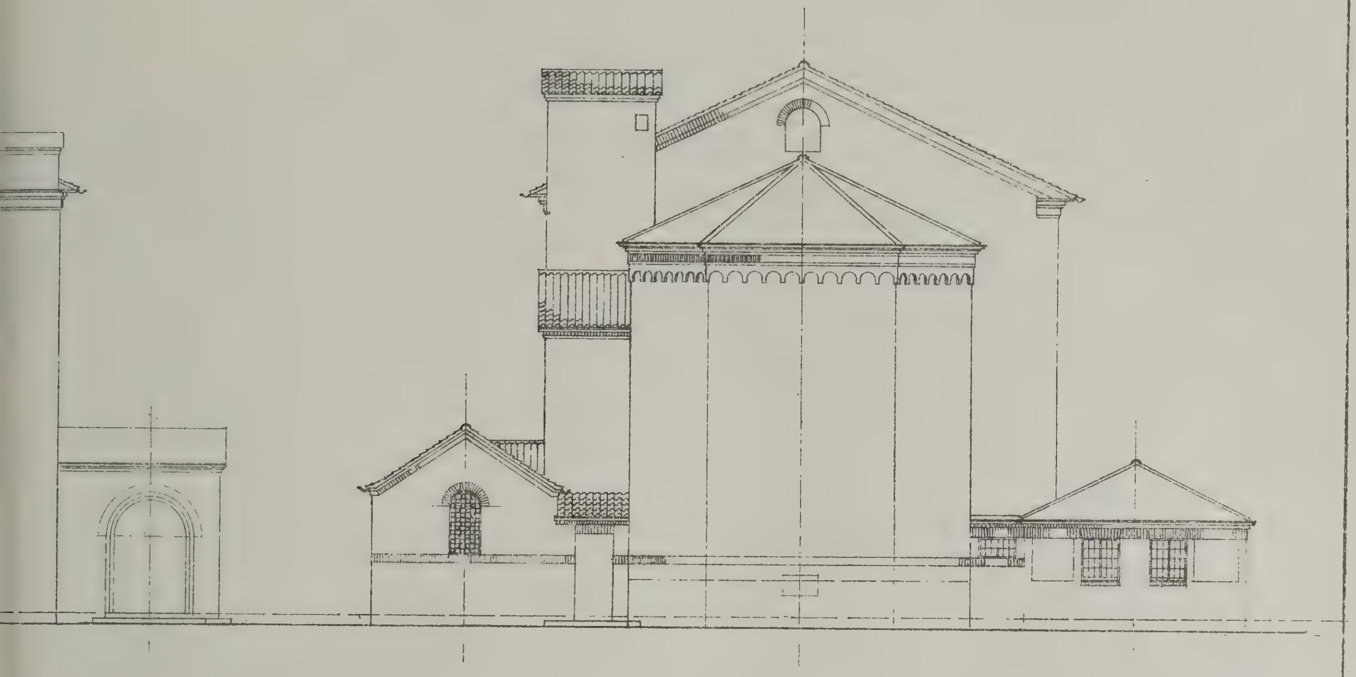
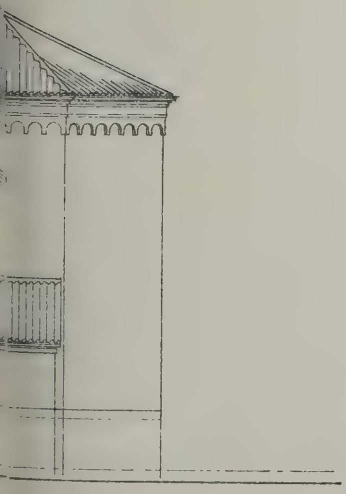


EAST ELEVATION.



ST. CATHERINE'S CHURCH

HAMMERSMITH.

ELEVATIONS.

SCALE OF FEET

DEL.: awa	ROBERT ATKINSON F.R.I.B.A.	774
DATE: 7-3-22	ARCHITECT,	
SCALE: 1/8"	36 BEDFORD SQUARE W.C.1	D

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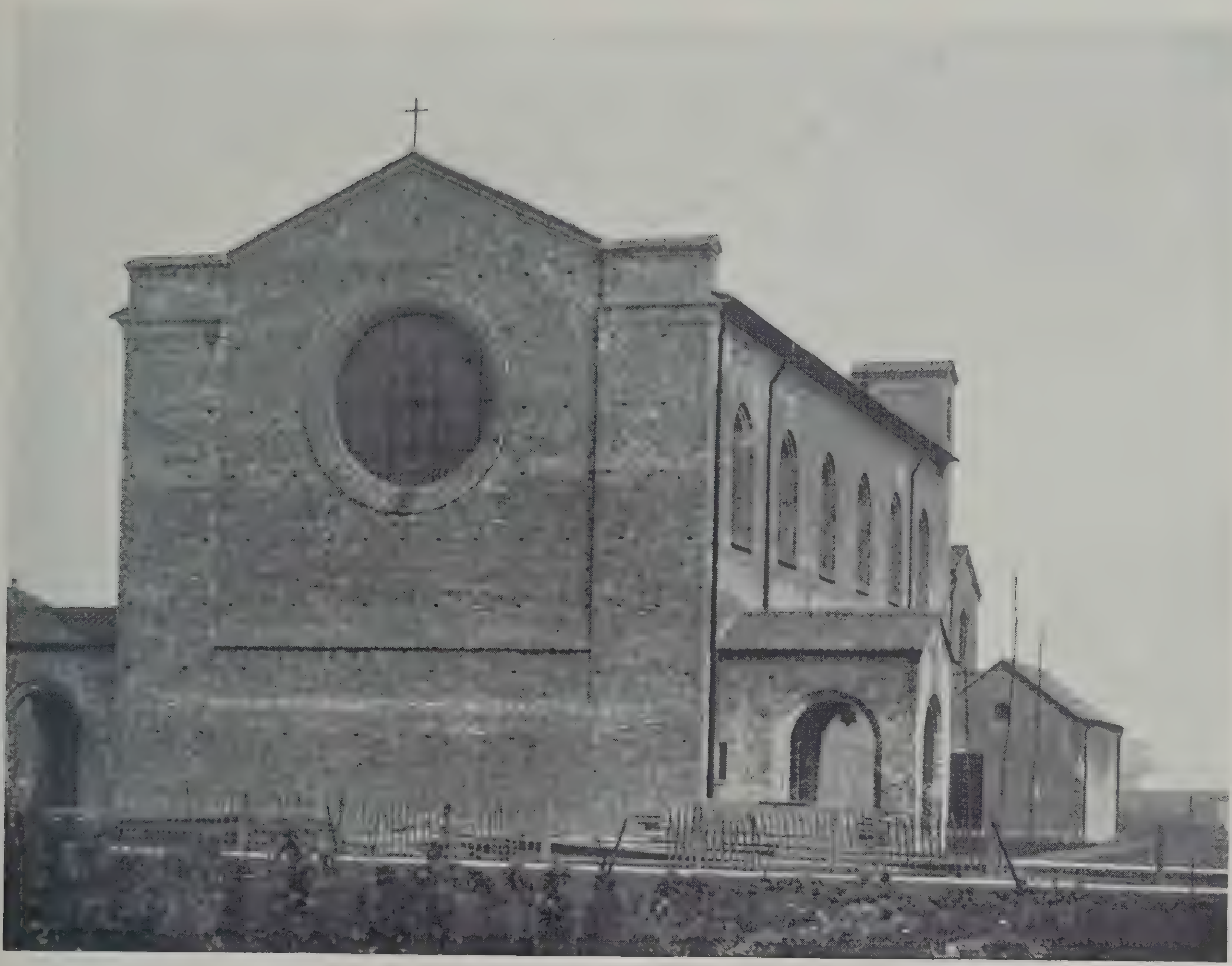
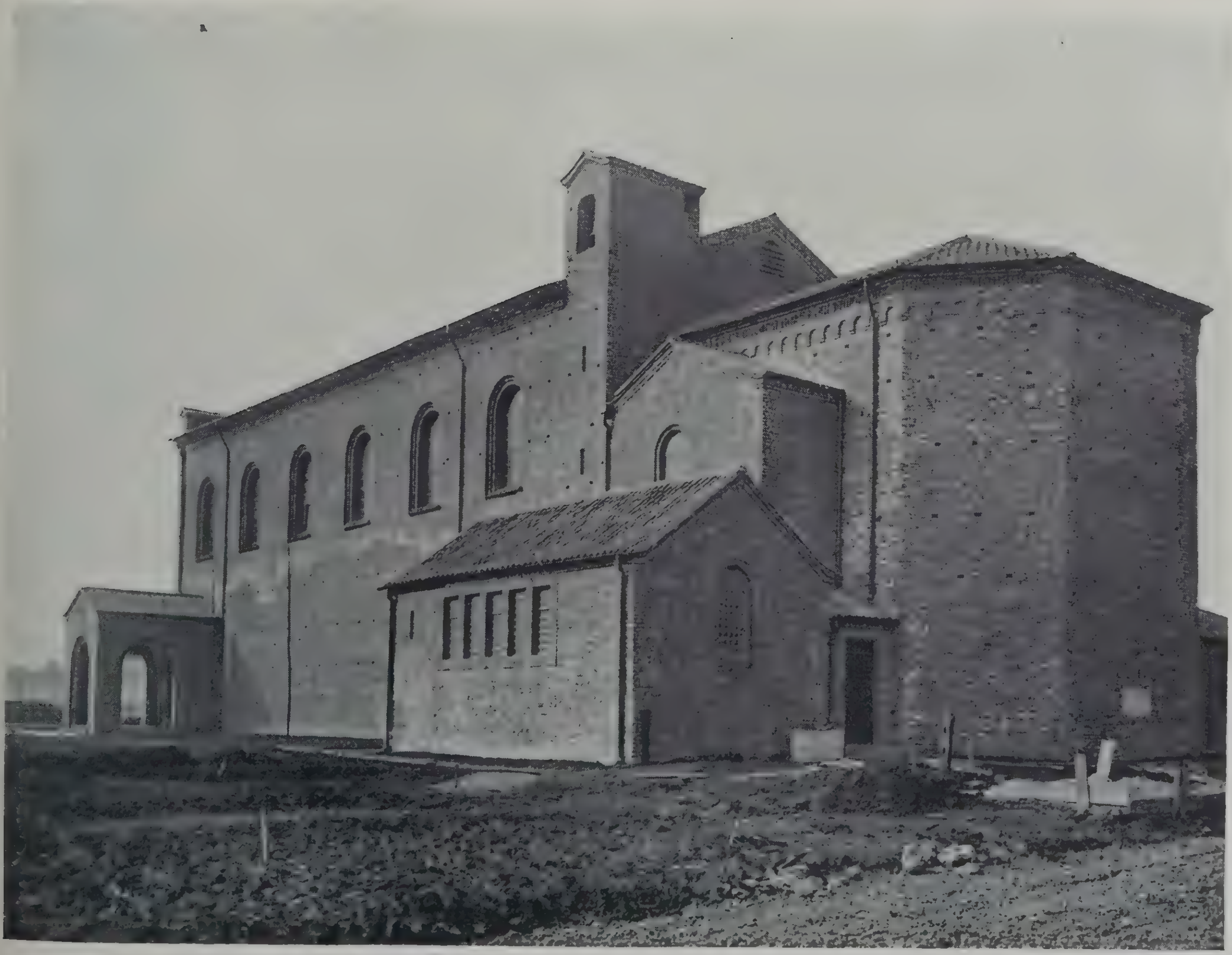
HMMERSMITH, W.

F ARCHITECT.

THE ARCHITECT, APRIL 6th, 1923.





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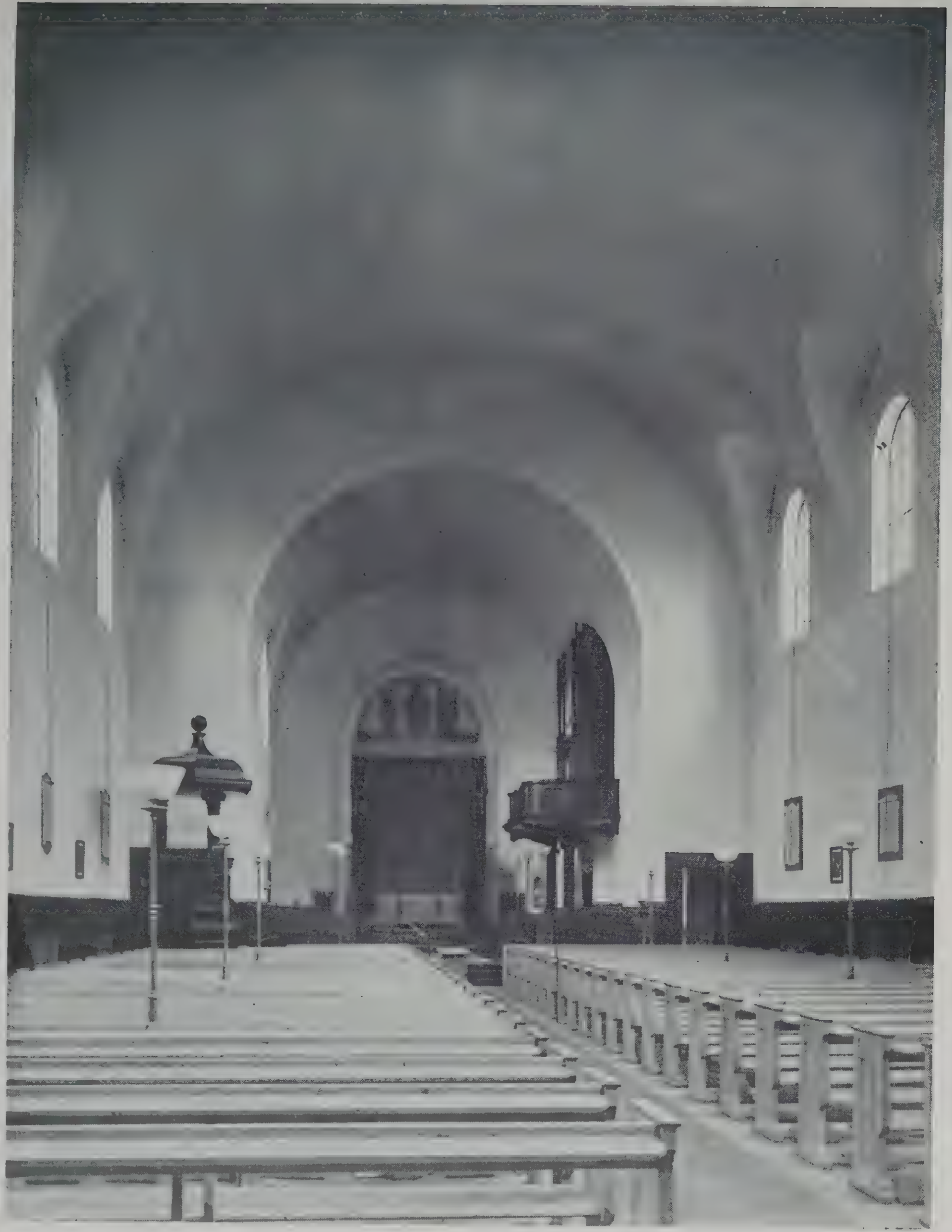
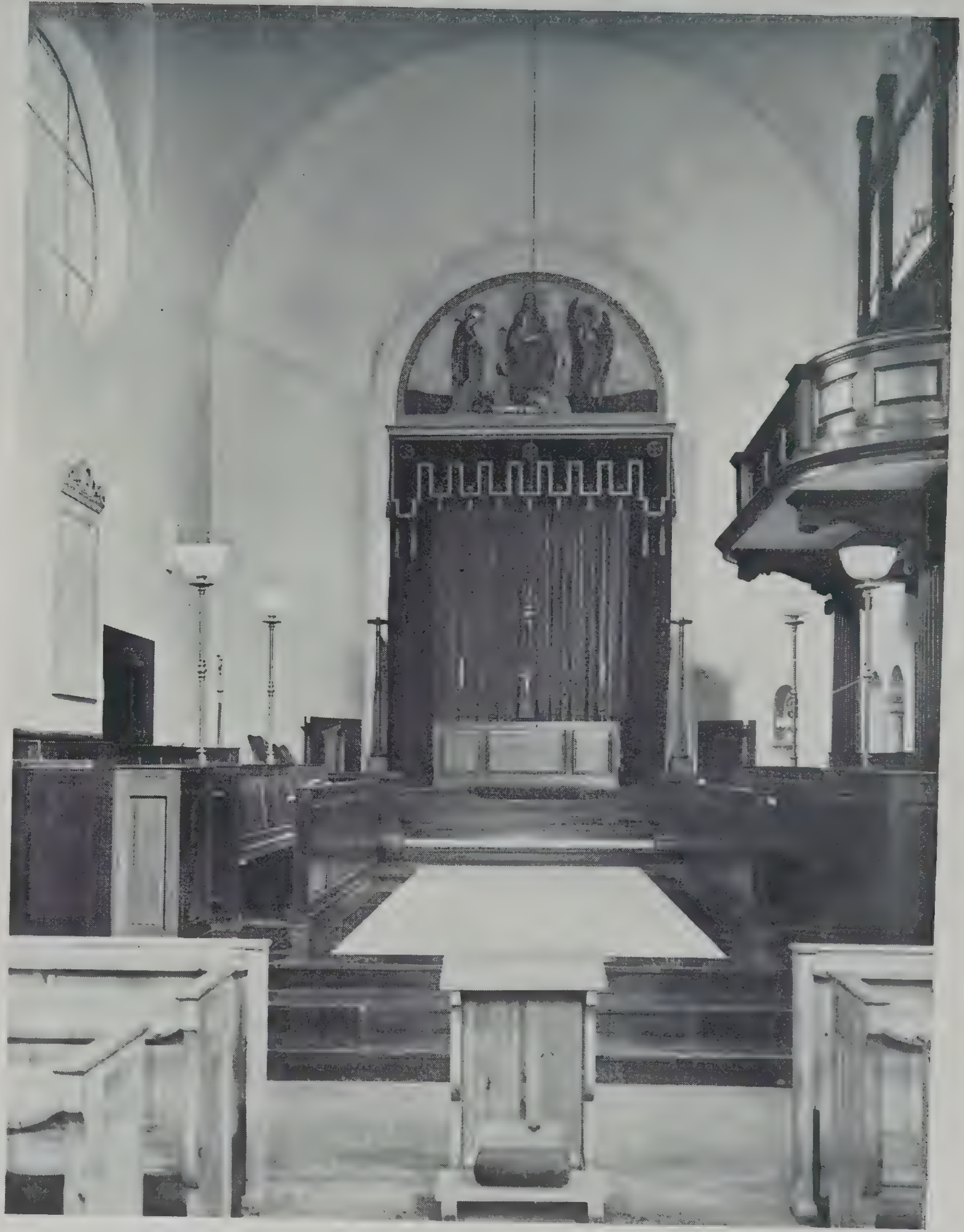
ROBERT ATKINSON F.R.I.B.A.



INTERIOR OF CHURCH.



VIEW OF CHANCEL.

ST. CATHERINE'S CHURCH, HAMMERSMITH W.

ROBERT ATKINSON, F.R.I.B.A.

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question of the date of decontrol of rents. On the one hand they want more houses, on the other they seem to believe that they can reasonably ask people to provide them, with the full knowledge that for a considerable term of years those who have built or invested in house property have been deprived of a large part of the profits of their enterprise, for no other reason than that they have performed a useful service in the past. Had they invested their money in the manufacture of toys, sweets, matchboxes, or anything else, they could have made what profits they could without let or hindrance. If the Government would come forward with some proposal which would enable tenants to buy the houses they live in on reasonable terms everyone might be satisfied, but to allow a number of people to go on paying rents which are under market value in the hope that at the same time we can induce others to build seems to us to be a suggestion of insanity. We may be quite sure that it is mpossible to separate the questions of housing and decontrol, they are part of the same problem and neither can be separately solved with satisfaction.

Price of Building Materials.

Replying to questions from Mr. C. Roberts and Mr. Turner (Batley and Morley, Lab.) as to the powers of the Committee which is to inquire into the price of building materials, Mr. N. Chamberlain said he did not propose that any statutory powers should be given at the outset to the Committee, but that it should confine itself to a survey of prices and to reporting the facts to himself and to the President of the Board of Trade. The question of legislation would be considered if experience of the work of the Committee showed that it required special powers to obtain books of account, balance-sheets and all necessary particulars from firms or combines supplying building materials equired for houses under the new subsidy scheme.

We think the above is an example of the manner in which questions are sidetracked in the House of Commons. It is quite clear to us that nothing can be done to force those who can sell goods at one price to accept a lower one, and hat Mr. Chamberlain would have saved time, expense and rouble by saying so. All that Government can do in uilding schemes they have in hand themselves is to import oreign materials or fittings in cases where prices asked for English goods are exorbitant. Legislation on such subjects s wages and costs has over and over again been proved to e useless.

An Eastbourne Competition.

From a local paper we learn that one-sided accounts are eing published in certain newspapers with regard to the ompetition for the improvement of the Grand Parade at Eastbourne. Apparently these accounts are inspired—in part, at least—by the Institute of British Architects. The Corporation have objected to the Institute's competition onditions, but have no wish to show any local favour, therwise they would not have agreed to an assessor being ppointed, and they are quite prepared to abide by his ecision as to the designs which are to be placed 1, 2 or 3, nd pay the premium in accordance with his decision.

But what they object to is that they shall be bound to arry out the design placed first, or, if it is not carried out ithin twelve months, that they shall pay the author of the esign placed first 1¼ per cent. of the estimated cost.

A person erecting a house would, it is pointed out, never gree to any such conditions. He would erect the house hich he considered suited his requirements best, and what he Institute wish to do is to impose conditions which are pplicable to a building upon an improvement scheme. would be interesting to know why they did not impose imilar conditions to these at Ramsgate or in connection ith the competition for the Technical Institute at Eastbourne. The Corporation have not decided to spend 0,000, as stated in a misleading article in a recent "Daily Mail." All they have decided to do is to get competitive designs for such a scheme and to award premiums mounting to £500.

We always regret that architects should be asked to prepare competition designs for buildings the erection of which is not definitely decided upon, and we think there are good reasons why the President of the R.I.B.A. should, in such cases, refuse to nominate an assessor.

Royal Institute of British Architects.

The following are notes from the minutes of the Council Meeting held on March 19:—

Australian Parliament Buildings Competition.—A grant of £105 was made to assist the Federal Council of Australian Institutes of Architects in the proposed legal action on behalf of the competitors in this Competition.

Reinstatement.—The following were reinstated:—As Associate: C. R. Winter. As Licentiates: D. Hoets, F. Howarth, J. R. Musto.

Retired Fellowship.—Under the provision of By-Law 15 Mr. Alexander Ross, LL.D., and Mr. W. H. Thorp were transferred to the class of Retired Fellows.

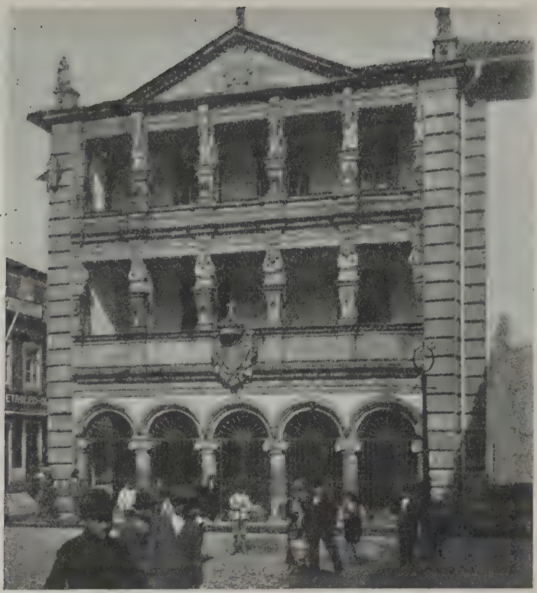
National Housing Policy.

The Council of the Royal Institute of British Architects recently submitted to the Ministry of Health the following recommendations as to the principles which, in their opinion, should govern future Housing Policy in Great Britain:—

1. The principle of the Small Dwellings Acquisition Act should be extended by means of an Act with some such title as "The Small Dwellings Erection Act," whereby Local Authorities should be empowered, with the aid of the Public Works Loan Commissioners, to advance money on mortgage to any approved person proposing to erect a small dwelling for personal occupation to approved plans and estimate cost, such advance being made in periodic amounts as the erection of the building proceeds, up to a maximum of 85 per cent. of the market value of the property or the cost, whichever is the lower, and to be paid off with interest by instalments spread over a period of thirty years, special arrangements being made for the easy transference of the legal interest in the property.
2. Where the Local Authority or approved Public Utility Society owns the land the Local Authority should be authorised to advance 85 per cent. of the market value of the property or the cost, whichever is the lower, to any approved person, firm, or Public Utility Society undertaking the erection of one or more suitable dwelling houses, on similar terms to those outlined in paragraph 1 above, except that repayment with interest should be spread over a period of forty years, the Local Authority to have power to acquire land for this purpose.
3. Local Authorities or Public Utility Societies erecting houses should receive from the State, as a temporary expedient only during the continuation of the Rent Restriction Act, annual block grants of an agreed sum per house, differentiated in respect of rural and urban schemes and exceptional circumstances, and applied to houses of approved accommodation built on estates laid out on town-planning lines.
4. With a view to assisting the revival of house-building by private enterprise, the Local Authorities should be empowered to use the annual block grant for the purpose of reducing or remitting the ground rent of land leased to private builders, instead of or in addition to employing the grant itself for building purposes.
5. As an alternative to the annual block grant system outlined in paragraph 3, the Ministry of Health should consider the grant of cheap loans to Local Authorities.
6. In cases where grants of public money are made it is of vital importance that a high standard of lay-out and accommodation be maintained.

On March 27 a deputation, consisting of Professor S. D. Adshead, Professor of Town Planning in London University, Mr. H. V. Lanchester, President of the Town Planning Institute, and four other members of the R.I.B.A., was received by the Permanent Secretary of the Ministry of Health on behalf of the Minister, and the recommendations detailed above were fully discussed.

The Architecture Club Exhibition, "Twenty Years of British Architecture," which has been running for the past four weeks at Grosvenor House, Upper Grosvenor Street, W.1, will close on Saturday next, April 7. To enable building craftsmen and employees to see the Exhibition, the committee of the club has arranged to admit them free at a special opening on Sunday afternoon next, April 8, from 2 p.m. to 6 p.m. Admission will be by Trade Union ticket.



THE HOSPITAL, VIANNA.

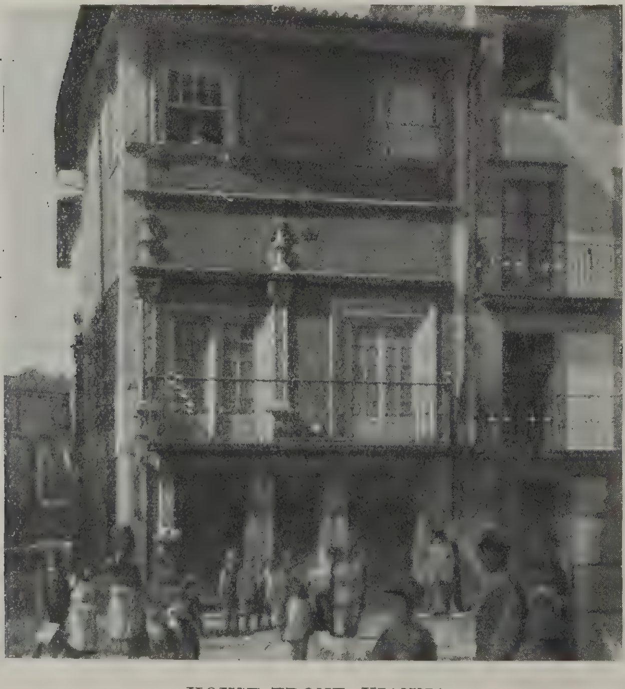
Notes from Portugal.

By G. A. T. Middleton.

No. XVII.—Vianna.

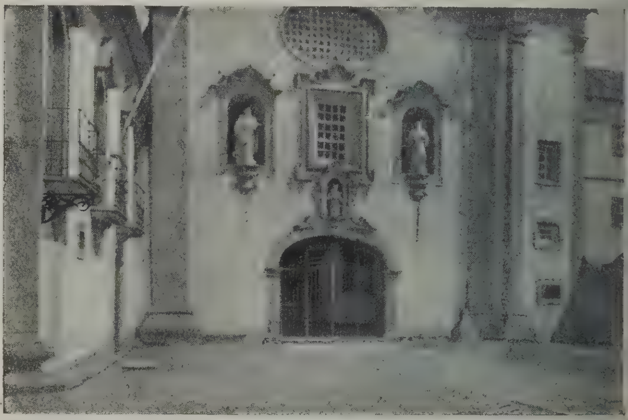
In the extreme north of Portugal there is a seaport of some importance which contains scarcely a vestige of old buildings and, equally, no modern ones of architectural value. This, so tradition says, is due to the English, who raided it in the days of Queen Elizabeth, when it belonged to Spain, and left nothing behind except a heap of ruins. Who rebuilt the town subsequently is a curious puzzle, for the Hospital, apparently the oldest building in Vianna and still the most important, is most strange.

The main frontage is almost an exact square in its proportions, with strong rusticated quoins and an entablature, whose depth is equal to the width of the quoins, surmounted by a pediment which extends over its centre half only. The entablature is thus too shallow for the building considered as a whole, but is proportionate to the topmost Order. There are three Orders, the lowest being Ionic, the columns carrying arches which have their outer mouldings carried on human heads above the centres of the capitals, while the two upper Orders have human busts on tall pedestals in place of columns. These all stand out in front of the wall, so that there is an arcaded recess on the ground floor and balconies of equal depth above—a sensible arrangement, as the building faces nearly south, and indicative of a sunny climate; yet the architectural detail suggests a northern origin, whether North German, Dutch or English Elizabethan it would be hard to say. The handsome coat of arms surmounted by a crown with ball and cross, which occurs over the central opening on the ground floor, is obviously a much later introduction, but it greatly helps the composition, giving it a focus which would otherwise have been lacking.



HOUSE FRONT, VIANNA.

Opposite to this building, nearly filling an open square, there is a fountain of the same incongruous type, coarsely carved in granite and now much decayed; and in a street near by, facing a deplorable apology for a cathedral, there is a house front of some interest—at least in parts, for it has suffered degradation. The ground floor has been converted into a shop, as modern shops go in Portugal, and the first floor windows also are modern. But a good deal still remains to suggest that it may have formed a composition of some merit and originality, its more exceptional features being the tall urns which give purpose to the pilasters, and the balluster-like architraves to the top floor windows—delicate detail all of it, enclosed in a frame of plain quoins. Colour, too, has been used, after the fashion of sunny lands, and badly needs renewing. Unfortunately the fenestration is bad.



CHURCH OF S. ANTONIO, VIANNA.

Lastly come the churches. In most towns they come first, but here at Vianna they are bad in all true senses, even though much money may have been expended on them. They seem all to have been built at a time when the Renaissance had lost its purity and was substituting quaintness for proportion while seeking originality in the contortion of features. That of S. Antonio is the best (except for one with an elaborate Manoëlian doorway, so placed that a satisfactory photograph could not be secured), but it is not greatly inspirational.

A posthumous work by the late Rev. J. C. Cox, LL.D., is announced by B. T. Batsford, Ltd. It is entitled "English Church Furniture, Fittings and Accessories," and will be the last and certainly one of the most interesting of his long series of ecclesiological studies, which extend over a range of more than forty years and comprise over fifty volumes. The book deals in an informative but popular manner with all the points of interest to be noted in going round an old English parish church—the churchyard, monuments, font and cover, screens, stalls, organ, wall paintings, pulpit, lectern, tiles, chained library, altar, sedilia and piscinæ, stained glass, etc. Dr. Cox sets forth and illustrates the chief types of all those fittings found in churches dating over a range of eight centuries, and he gives freely from his abundant stores of knowledge of Church lore and customs. The book even includes an account of such strange objects as banner staves, maidens' funeral garlands, dog tongs, etc., and is illustrated by over 250 reproductions from photographs by Mr. F. H. Crossley, F.S.A., and others, as well as by a number of drawings of objects which have disappeared.

OLD HOLLAND. By G. G. WORNUM.

Architectural Association.

An ordinary general meeting was held at 35, Bedford Square, .C., on Monday, March 26, Mr. Stanley Hamp, president, in e chair.

t was announced that the Council had unanimously elected . Ian MacAlister (secretary of the R.I.B.A.) as Honorary mber.

Mr. Maurice E. Webb then proceeded to read his paper, itled—

As Others See Us.

t is sometimes good to get away from the purely architectural blems which face us and look at life from a different angle. for to-night I chose as the title of my paper "As Others Us," and began quite eagerly to write it months ago.

irst I recalled my own early childhood, when I always told mother I was going to be a housemaid! I was an outside erver then, and, no doubt owing to my inability to master English language, was unable in words to differentiate ween the work of my father who made houses and that of lady who made the beds!

have observed a somewhat similar misapprehension amongst ain ladies of my acquaintance. They see us not as house ers, but as cupboard makers. It doesn't matter what the se is like, what it costs, whether it is well or badly built, if n't full of cupboards any other virtue it possesses is apt to gnored.

his isn't architecture; it is the fringe beloved of the Press the Public. Unfortunately, the fringe is often the most active part of the skirt. Women are an attractive part of and so their view cannot be altogether ignored. Therefore cupboards as large as possible, linen cupboards, dress oards, coal cupboards, store cupboards, box cupboards, cupboards! Heaven knows what they do with them all they get them. Woe betide any young or old architect does not provide them everywhere, even though the result- ost of the house will be so great that the poor man who, in nine cases out of ten, has to pay for it has only enough money left to build a little dining-room cupboard, drawing-room and kitchen cupboards, and a few odd bed cupboards scattered about. That is not, I think, an unfair description of the modern ideal house—very convenient, no doubt, but slightly cramped!

But that is only one aspect of the subject of my paper, the idea for which first occurred to me during the war, when, in the early days, some forty of us from the A.A. joined the Engineers at Chatham. The Colonel in charge sent for me and said, "What the devil have you architects joined the Engineers for? You are no damned good to us!" I asked why, and he replied, "You can't dig!" I parried with a reminder of a promise of Lord Kitchener's that friends should serve together, and he floored me with another, shot out in true Army style, "What! Put forty architects together? They'd spoil any company of Royal Engineers!"

That is how the Army saw us at the beginning of the war.

Well, since Mr. Yerbury pinned me down to a definite date for reading this paper I have been introspecting on some other aspects of "As Others See Us."

In every bit of work I have done since, there has been floating before my eyes a banner inscribed "As Others See Us." My clients have become ogres who have, I am sure, been discussing their architect's failings at every twist and turn; contractors have appeared to be very critical of specifications and drawings; one's office staff has, so it seemed to me, been a trifle more eager than usual to find little faults in drawings and to make corrections in the proportions of the orders or other details, carefully thought out to improve if possible on the well-worn forms commonly used in Italy or Greece. In fact, "As Others See Us" became a burden, and seemed to follow me everywhere.

I decided that the best way to compile the matter for this paper was to write for views upon architects from representative people who are outside the profession, and who know me sufficiently well to give their views fearlessly. If in their replies they give tongue to views which are not in accordance with the accepted theories of architecture, the fault, you will understand, is theirs and not mine.

The people I wrote to are fairly representative of the population: (1) The wife of an architect; (2) a Member of Parliament; (3) a civil engineer; (4) a sculptor; (5) a contractor; (6) a student; (7) the cook; (8) a painter; (9) a furniture dealer; (10) the art critic; (11) a housing commissioner; (12) a quantity surveyor; (13) a High Court Judge.

I asked each one to give me his or her view of the efficiency of the modern architect, on his merits or his failings, his education or lack of it, his methods of working, and to add any comments that were relevant to the subject. If it will not pain you I will, in a moment or two, read to you the result of these communications.

I regret to say that some of my correspondents treated my subject somewhat frivolously, but even so, and reading between the lines, they offer some hints which may be of some use to you whether old or young, and I think it is perhaps occasionally good to hear some criticisms of one's own profession.

I have copied the letters in the order in which I received them.

I had hoped to receive some replies from one or two of my clients, but up to date they have not deigned to answer (I don't know whether this is a good or a bad sign), except one lady who wired: "Moved in yesterday, everything all right except the bath. It has the taps at the side and must be changed at once, as I always turn on the taps with my toes." Now how on earth was I to know that?

I only tell that story to show you one of the sidelights of an architect's difficulties.

Mr. Webb then proceeded to read the letters, from which we give the following extracts:—

THE WIFE OF AN ARCHITECT.

"For goodness' sake don't tell George what I really think about his profession, because he is worried enough already, poor man, with a most trying lot of clients, who each expect him to give them his whole time. As a matter of fact we are doing pretty well and have (now that our fees have been raised to 6 per cent.) decided we can afford to keep a motor bicycle. . . . But it's a funny thing, for although, as you know, we live in a house George designed, it's a most inconvenient house. George says that it was one of his early ones, and that he could do much better now. . . . Where we are going to put the motor cycle I can't think. There is only one bathroom, and I tell George that, now his fees have been raised, we must move. He says that he is going in for a competition, and until that is decided he can't think or speak of anything else. . . . Oh! I think architecture is a lovely profession really. George meets such nice people and stays in such jolly houses when he is doing what he calls domestic work. . . ."

A MEMBER OF PARLIAMENT.

". . . I do wish you architects would design a chimney that does not smoke and damage things, especially buildings. . . . Don't you have anything to do with the present form of the movement for the registration of architects. You have two or three different societies who pull in two or three different directions. Apparently they all profess to want registration, but cannot agree either amongst themselves or even amongst the members of each society how to get it, not to mention the difficulty of finding out the opinions of the non-members and the possible opposition of the engineers and surveyors and other professional men, who, if you will forgive me saying so, are, in this scientific age, at least as important as you architects. . . . As regards your other questions, I really don't know that I can say much: we have very few architects in the House of Commons, but we have decorators, contractors and estate agents who are in the same sort of line, I suppose, and I don't think they missed much in their education—very smart men all of them. . . ."

A CIVIL ENGINEER.

"Your letter has come at a most opportune moment. My sister is building a house, and she asked me just to run over the architect's specification. He is actually proposing to use hand-made bricks 2 inches thick (I think they are)—now just fancy that. In these days of machinery going out of his way to use hand-made bricks of a special, or what the bootmakers call an 'outside size'! Of course I stopped it at once and had proper standardised machine-made bricks of a suitable colour and hard surface substituted, and I insisted also upon reasonable joints of the size specified by the R.I.B.A. . . . Another thing this architect has done which I don't approve of at all—he has put the garage at the bottom of the garden (he has some ridiculous idea, I think, of making it form part of a symmetrical group
with the greenhouse) when, of course, in a small house like t
it ought to be attached to the house and accessible with
going out, because my sister, as he ought to know, drives hers
and it is no good going out to dinner on a wet night in a
if she gets wet through before reaching the car. . . . By-the-
can you tell me why architects make all their drawings differ
sizes? We engineers make our drawings to the scale which
certain-sized sheets of paper. This is a more practical sche
and assists us enormously in filing them away neatly."

A SCULPTOR.

"I suppose we all have our faults, but I do think that ar
tects are rather more troublesome than most men. They ne
will put enough sculpture into their buildings to suit my ta
and when they do it is generally high up on parapets or cram
into niches which are too small for the figures. . . . They w
estimates for everything, models, carving, etc., and they do
seem to realise how difficult it is for me to make an estimate
a model of, say, a figure of Cupid, when I haven't the fain
idea how long it will take to model her or for how many sitti
I shall have to employ my model. . . ."

A CONTRACTOR.

". . . At the moment our principal criticism is in the ma
of the form of contract which we are usually asked to sign.
is antiquated and out of date, in our opinion, but after mon
of negotiations we do not seem to be getting much neare
an agreed revised form. . . . We have noticed since the
that architects' specifications, especially in the matter of tim
and new materials, are not always drawn up as accurately
they might be to conform with the changes in the source
supply brought about by the war, and the many improveme
that have recently grown up in connection with struct
methods. It appears to us that in the very excellent archi
tural schools which now exist throughout the country m
time might be devoted to construction and to visits to buildi
in course of construction, especially large ones. We should
to see a master-builder attached as a lecturer to every archi
tural school in the land. . . . Quite recently we regret to
that Birkenhead, a little town in the North, has fallen in
the prevailing fashion and decided, on grounds of economy
appoint a salaried architect to do their educational buil
work. There is only one consolation to us, and that is
when all architects are salaried and employed by Governm
all incentive to economy will cease, as it always does in Dep
mental work, and we builders will have a jolly good time."

A STUDENT.

"I have laid your letter before the Students' Commi
which is representative of the whole school, and they have as
me to reply as follows:—We divide architecture into two cla
—namely, those who know what 'esquisse' means and t
who don't. Probably very few architects over forty do.
shouldn't think life worth living without the 12 hours 'esqui
and it really is perfectly inexplicable to us how any archi
can dare to practise architecture who has not been through
ordeal. There are, of course, lighter moments of our rigo
modern training, such as dances in the library, plays in
basement, and other incongruities which you old fogies n
experienced. We look upon architecture as an art to be enj
like other arts, as part of life, not a thing of office routine
the other sordid details associated with a business. One of
students who left last term went into a city architect's o
and was asked straightway to make a working drawing o
elliptical staircase. It was hardly fair, coming on the top o
esquisse, but of course he made it, and took it to his boss,
looked at it for a moment, and said, 'Good heavens, man,
never seen a staircase look like that before.' To which
member replied, with considerable pluck, we thought, in
memorable words of Turner to the lady who made a some
similar complaint about one of his sunsets: 'No, but supp
you had.' That is where we on the Students' Committee t
you practising architects make such a mistake—you will i
on students from the schools coming out fully equipped t
your work for you, in your own particular way, as if they
spent their time in your office as pupils licking stamps
waiting for clients. No, sir, the times are changed, we
learning real live architecture here, and when we come into
offices we are quite willing, in exchange for a small screw an
insight into the business side of the affair, to give you in re
the very latest thing from the school in the way of design
draughtsmanship. I hope I have not written at too gre
length, but I have just been asked to rub it in, and also to
that while Liverpool wins all the Prix de Rome's, we at the
have in recent years won many important public competit
which shows which way the straws are blowing."

OLD HOLLAND. By G. G. WORNUM.

The Cook.

"I am honoured with your request and speaking for myself, I am quite positively certain in a manner of speaking that no Harchitect designed my kitchen. It is underground and very dark and very large. If I drag my varicose veins a yard a day I drag them a mile between the kitchen range and the dresser and the table and the larder, and for every drop of water I 'as to take a regular tramp into the scullery. . . . I 'ave been studying of some beautiful little 'ouses in the 'Daily Mail' show at Olympia, with kitchens no bigger than a man's hand and everythink to 'and as the saying goes. Sink, kitcherner, larder, boiler, dresser all a-touching of each other and me cookin' between. A regular proper workship that's what I calls it. . . . I don't know much about heddication, but I do think as an Harchitect would learn a lot about planning things out if he could be a cook for a week or so."

A Painter.

"I have two great faults to complain of amongst the architects I know—nine out of ten of them are devoid of colour sense, and in consequence no colour is now used, and everything is painted white. The other is that where any decoration is employed you all nearly always go in for panelling, so that in any ordinary building there is not a square inch of wall space where my pictures can be hung. Even if a little space is left for pictures, the light is generally wrong. . . ."

A Furniture Dealer.

". . . I can only speak of architects from the point of view of my own trade, and I must say I have never found any need of their services. You see, Chippendale, Adam, Heppelwhite and scores of others have done all the designing long ago. We have organised factories to manufacture genuine antiques and trained our own draughtsmen to work in what we call 'period styles.' The public like their work, and don't want a lot of new-fangled ideas brought into such homely things as wardrobes, chairs and bedsteads. . . . I don't hold with experiments."

An Art Critic.

". . . Any fool can write about painting and sculpture, but architecture is a much too complicated affair for me and my brother critics. . . . What I never have understood is why you architects don't try and design us a little decent modern furniture instead of leaving us to the tender mercies of Tottenham Court Road."

A Housing Commissioner.

"I thought you knew that I had left this job, and returned to architecture, a sadder and wiser man. Of course, Lloyd George fooled us all, and for a time we really believed we were in a Government office for the sole purpose of producing a new heaven and earth for the working classes. From the very moment when they appointed a contractor to boss us and ignored the R.I.B.A. altogether I began to realise that I had been an ass. Things went from bad to worse. The bottom fell out of the housing business, and we, the officials, were, of course, the bottom which fell out first. Geddes saw to that, and very properly in my opinion. . . . But there is still work to do, and I believe you architects can do it if you will buckle to and devise a scheme whereby the people of this country can secure good houses, well planned and reasonably priced houses, at a moderate cost. The American architects are doing it; why don't you? I would even lend a hand myself, but having lost all my private practice by joining the Ministry of Health for what I thought was a lifetime job, I am now engaged in the very much more lucrative business of an agency for wireless sets; so have no time or opportunity to help."

A Quantity Surveyor.

"I have worked for a great number of architects, and I have always found that the more artistic they are the greater difficulty I have in obtaining really complete and accurate plans and details before I start my quantities. . . . It does not help me to be told 'Oh! never mind about the cooking apparatus or the plumbing; we will put in a provisional allowance for that,' because I cannot then make accurate allowance for the necessary attendances and cutting away which must be included for these services. . . . It seems to me that architects ought to insist upon more time in which to make their drawings, and then perhaps the building can be built from them without any alterations. Alterations are the curse of a surveyor's life, and the chief ultimate source of extras. . . . There is one quality I have found curiously enough common to all architects—*i.e.*, they are optimists, and invariably think a building is going to cost less than it does. If only they would rely on their surveyor's figures and tell their clients those instead of lopping bits off them, there would be fewer disappointments when the tenders come in."

A HIGH COURT JUDGE.

" . . . In my professional capacity I simply detest architects. They litter up my court with their beastly models and plans covered all over with angles and coloured lines, which no one, except possibly themselves, understands. That is, I suppose, why they are called experts. There are generally two aside, and the sides are always diametrically opposed. The first pair say that 'A's' light is quite ruined by 'B's' new building, and the second pair unblushingly say that 'B's' building has not only not damaged 'A's' light, but has, if anything, improved it. Then after this pleasant opening skirmish I have to sit and listen to endless explanations of the angles and coloured lines, and in the end we generally settle the case by a little judicial use of common sense. . . ."

CONCLUSION.

Mr. Webb confessed that he began to despair after reading these letters of ever hearing anything good of an architect again or any of the branches of his work. Fortunately he got another and unsolicited letter from an old school friend who had recently had a house built, and in doing so came to realise how perfect an architect can be. That final letter was a pæan of praise, and encouraged Mr. Webb to lift up his head once more, and likewise enabled his audience to remember that there were perfect clients as well as more or less perfect architects.

DISCUSSION.

Major Harry Barnes, in proposing the vote of thanks, said that whether the letters were authentic or not, the audience had had a most enjoyable evening. Mr. Webb ought to have appeared as a novelist. If architects were ever put on trial before a jury composed of individuals such as those who had written the letters they could not find a better advocate than Mr. Maurice Webb. What came out of it all was that architects were indispensable. If they could have been done away with, those people would have united to put them out. As to the position in which architects were held in the House of Commons, he certainly first got the impression that it was not quite as lofty as that of the painters, decorators and furniture dealers. But that was changing, due partly to the housing schemes, and especially to the improvement in architectural education. What had struck him most in listening to the letters was the phrase in that from the students to the effect that they were learning to enjoy architecture as other artist students were learning to enjoy life. As that spirit grows, and the students come into the professional world with that spirit, they will carry everything in front of them. Nothing carries people along so much as the feeling of enjoyment. Excellent as their education might be, the best thing was this kind of life blowing through it. He believed the status of architecture and of architects was now improving, and that this was due to the fact that it was not only a matter of dry-as-dust but to the new spirit.

Mr. C. F. A. Voysey said it had been an extremely interesting and useful address. He was glad Major Barnes had emphasised the human side of the profession. It was personal character, not style, which would make architecture great. In his youth there had been classic architects and Gothic architects, each turning up their noses at the other. Whereas the humanities were the important thing. But the profession had a long way to go before they got back to human building with human interests.

Professor Gerald Moira thought that the architect had not yet quite got hold of the use he could make of the painter. His surfaces were divided up too much with mouldings and things. In America they were using the mural decorator in a far better way and with far less interference than over here. Mr. Webb had told them of an architect who was able to afford a motor bike, then a Ford, and, doubtless, finally a Rolls-Royce. When could a mural painter get the wherewithal for a motor? The troubles and worries of an architect were as nothing compared with the troubles and worries of a painter.

Mr. H. M. Fletcher suggested that the spirit of "The Purple Patch" had been invited to preside over their meeting that night. It seemed as if architects really had to know everything said, thought or heard. Nothing came amiss to him. In spite of Professor Moira, he did not believe the painter had to know so many things. He agreed with what had been spoken about the new life in architecture. There was also a growing public interest which was very important, as architects could not work in a vacuum. For progress there must be an architectural sense, and a considerable residuum of people who really care about architecture and not regard it merely as one of the things they think about when their attention is called to it. Lord Sumner, in his recent public lecture before the R.I.B.A., showed that architecture was evidently the stuff of his thoughts when his mind was not engaged on his profession. That was the kind of spirit they wanted to find among people of intelligence—and every year they were finding more of them.

Mr. R. R. Goulden suggested that if an architect was able to master all the things he came into touch with he would be a god. All important was the faculty of understanding mankind. The architectural profession was certainly the most difficult to master, but surely the most interesting, since the study of man exceeded that of all others. If the arts were reduced and we got to rock bottom, things would be better. There would be more hope if we could avoid those dreadful styles and returned to the study of man. He could not conceive anybody more essential than the architect. Did not the word itself mean "the senior master of works"?

Mr. H. B. Cresswell gave his opinion that the letters were a guy.

Mr. Stanley Hamp, the president, said the letters contained a good deal of valuable criticism as they went beneath the surface. He agreed substantially with a good deal of it. However, he was sure a number of people had a much better opinion of architects than the letters would suggest. At the A.A. they were keen upon that human interest which the students take in their work, and they found that though the students were young they did not give up their work in pursuit of social pleasures. There were signs that the architecture of the future was going to be better than that of the past, because the students are animated by a spirit that is modern.

Mr. Maurice Webb, in acknowledging the vote of thanks, said he would like to end with one more quotation—this time from a genuine letter:—

> "Augustus at Rome was for building renowned;
> What in marble he left, in brick he found.
> Was not our Nash, then, a very great master?
> He found us all brick and he left us all plaster.
> A greater than Nash has arrived, it is plain,
> And has whitewashed the Abbey to keep out the rain!"

Sir Arthur Evans is leaving for Crete in order to undertake supplementary researches for the completion of his "Palace of Minos."

The Cardiff Corporation invite applications before April 9 for the appointment of city engineer and architect and surveyor at a commencing salary of £1,250, rising to £1,500 per annum.

Brighton Corporation propose to apply to the Ministry of Health for sanction to a loan of £70,000 for the erection of further houses (making a total of 181) on the Queen's Park Road site. The cost of the houses is estimated at £366 each.

Plans and estimates for the work of demolishing the old buildings adjoining the west side of the Tolbooth Steeple at Glasgow Cross, and for the underpinning of the Steeple, which the Glasgow Corporation decided to preserve on its original site, were submitted to the Corporation Special Joint Committee in charge of the arrangements by Messrs. John Keppie & Henderson, architects. The committee approved of the plans and estimates, and agreed to recommend acceptance of the offer of Messrs. R. Gilchrist & Son (Ltd.), building contractors, to undertake the work, with which this firm were to proceed on an early date.

A tour to the Lower Rhone Valley is being arranged by the Garden Cities and Town Planning Association in May. It is proposed to visit Avignon, Arles, Nîmes, Aigues-Mortes and Aix, a group of towns of fascinating interest to architects, archæologists and town planners. The party will leave London on Thursday, May 17, and will return during the week-end, May 26 to 28. Considerable attention has been drawn to these towns of late by the writings of Mr. Arnold Bennett and others, but they are still unknown to a very large number of Englishmen. The time of year has been selected to avoid the Mistral, which may blow any time up to the middle of April, and the great heat which comes upon the Midi in June. The inclusive charge will be in the neighbourhood of £18, the exact sum depending on the course of the exchanges, and applications for inclusion in the party should be sent to the Secretary, Garden Cities and Town Planning Association, 3 Gray's Inn Place, W.C.1.

Correspondence.

Maximum Brightness for Diffusing Bowls.

To the Editor of THE ARCHITECT.

DEAR SIR,—In the review of my book, "The Elementary Principles of Lighting and Photometry," which appeared in "The Architect" for March 9, I notice that the reviewer has queried the figure of 3 candles per square inch given by me as the maximum desirable brightness of a diffusing bowl in semi-indirect lighting, etc. He says, ". . . does not the author mean 'per square foot'?" May I, by your courtesy, point out that 3 candles per square foot is only approximately three times the brightness of white paper *illuminated* for reading or writing, and is therefore an impossibly low figure for an *illuminating* surface. Three candles per square inch, which happens to be about the brightness of a candle flame, is now very widely adopted as the figure for maximum desirable brightness.—Yours faithfully,

JOHN W. T. WALSH.

5 Haggard Road,
Twickenham.
April 2, 1923.

Threatened Building Stoppage.

To the Editor of THE ARCHITECT.

SIR,—I herewith beg to enclose copy of communication sent by this Society to the Ministry of Labour, the Builders' Federation and the Building Operatives Federation.—Yours, etc.,

SYDNEY A. GRADWELL, Secretary.

Manchester Society of Architects,
29 Princess Street, Manchester.

DEAR SIR,—The Council of the Manchester Society of Architects, whilst feeling that the questions involved can best be settled by the employers and operatives themselves, wish to offer their services if in any way they could be of use in preventing a stoppage of the trade, which would be contrary to the interests of the public and the two parties immediately concerned.

The Council is convinced that the present cost of building and the uncertainty of conditions prevailing prevent a large volume of work being put in hand, and that much more employment would ensue to the trade if the cost of building could be reduced. The Council urges that the dispute should be settled by further immediate conference so that a strike or lock-out may be avoided.

Yours faithfully,
FRANCIS JONES,
President of the Manchester Society of Architects.
W. S. BEAUMONT,
Hon. Secretary.

Building "Rings" and Houses.

To the Editor of THE ARCHITECT.

SIR,—The prolonged and irritating shortage of houses has undoubtedly created a wealth of feeling, and the operations of all and sundry engaged in the building industry have—quite properly—been closely scrutinised from time to time during the past few years.

The disappointment resulting from the inability by the Government to supply the requisite houses promised under their building scheme has probably contributed very largely to the revival in the Press of the subject of "rings" and combines, and, notwithstanding that in the past the Builders' Merchants have been clearly absolved from all responsibility for the present state of affairs, as it is evident that considerable misapprehension still exists in the public mind as to their functions, it would not appear inopportune to reiterate certain facts, so that such misunderstandings may be dispelled.

The building industry consists of three main divisions—the *Manufacturers*, the *Builders' Merchants*, and the *Builders*. Long experience has proved that all three are indispensable to the proper carrying-on of the trade. The Manufacturer produces the various descriptions of building materials. The Merchant is the large local stock-holder of the goods so produced, delivering them to the builders as required for the erection of the houses upon which they are engaged. Provided this point is clearly appreciated, the Builders' Merchants welcome the fullest ventilation in the Press of the much-discussed subject of the high cost of building.

I wish to emphasise the following facts, which speak for themselves:—

1. Far from making exorbitant profits, any Builders' Merchant who has seen a net profit on his business during the last twelve months has been fortunate, especially if he has been dealing with the castings side of the trade.

2. Criticisms in the Press appear to overlook the very important fact that building material costs have fallen very considerably during the past twelve months—in some cases from 25 per cent. to 45 per cent. Practically every item has shown a decrease (castings and hardware in particular), and Merchants stocking the goods have suffered very heavy losses as a result.

3. Builders' Merchants as a body have always been only too pleased to assist any enquiries instituted by official departments relative to prices, and no proof has been, or can be, adduced that they are in any respect profiteers. The exhaustive investigations of the Government Profiteering Committees gave them a clean bill of health in this respect, and the Builders' Materials Central Committee (mentioned recently in some of the articles) actually lodged their Price Lists with the Board of Trade for several months, with full details showing how the prices were arrived at, and the margin added.

4. The high cost of building is not the only obstacle to the erection of new houses. Equally important is the Rent Restriction Act, which not only deters private enterprise from building, but renders it impossible for the general public to appreciate what is a proper economic rent. *There is ample capital available for investment in building immediately an economic return is obtainable, but while the Rent Restriction Act is continued private enterprise is deterred. Rent restriction is the real obstacle, and not the high cost of materials.* It is therefore to be hoped that a speedy solving of this problem to the satisfaction of all concerned may be brought about by the Government in the near future.

5. Production costs are kept from falling by heavy taxation, dear fuel, excessive railway rates, high cost of living, the burden of unemployment "doles," and all the other ills affecting society generally. It is therefore futile to endeavour to saddle the responsibility on the Builders' Merchants.

In view of the widespread publicity given to this subject, and the desire by the Press at all times to probe the full facts, I trust that, in common fairness to the Builders' Merchants of the Kingdom, their point of view may be given equal publicity.—Yours, etc.,

SIDNEY NEVE,
Secretary.

The National Federation of
Builders' Merchants' Associations,
"Colonial House,"
155 Fenchurch Street, E.C.3.
March 26, 1923.

The R.I.B.A. and Housing.

To the Editor of THE ARCHITECT.

SIR,—I feel confident that the whole nation is anxious to assist the Government in every way to procure at once decent dwellings for all classes at rents which they can afford to pay. It behoves us, therefore, to watch keenly the methods by which those desirable results may be secured and to prevent a repetition of the actions which led to the failures of Dr. Addison and Sir Alfred Mond in house production.

The Council of the Royal Institute of British Architects has just submitted to the Ministry of Health some "recommendations" which it thinks should govern housing in Great Britain. These recommendations have not been submitted to the general body of members of the R.I.B.A., and I suggest that had they been submitted they would not have reached the Ministry.

Space will only permit me to pick out a few plums from the document, such, for example, as "approved person," dwellings for "personal occupation," "approved plans and estimate cost," maximum of 85 per cent. of the "market value," "interest spread over thirty years," "repayments with interest spread over forty years," "the local authority to have power to acquire land for this purpose," "grants of an agreed sum per house," "houses of approved accommodation built on estates laid out on town planning lines," "remitting the ground rent of land leased to private builders," grant of "cheap loans to local authorities," and, finally, the "vital importance that a high standard of lay-out and accommodation be maintained."

If the Government listens to any such recommendations as those submitted by the "Council" of the R.I.B.A. another "Department" will be created with an army of architects, surveyors, inspectors, valuers, lawyers, and heads of departments, the total result being serious delays, enormous costs, red-tape, faddism, and absolute certainty that the wrong sort of house will be built, and that another huge Government grant will be needed to secure occupants at rents which they can afford to pay.—Yours, etc.,

WM. WOODWARD, F.R.I.B.A., F.S.I.

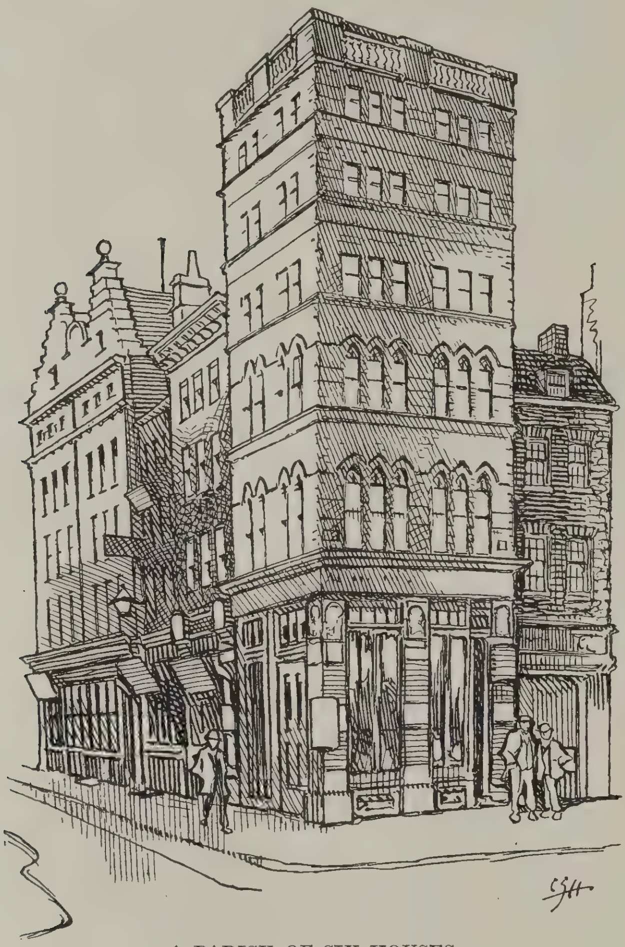
15 Great James Street, Bedford Row,
April 2.

(*Continued on page* 246.)

London City Parishes.—I.

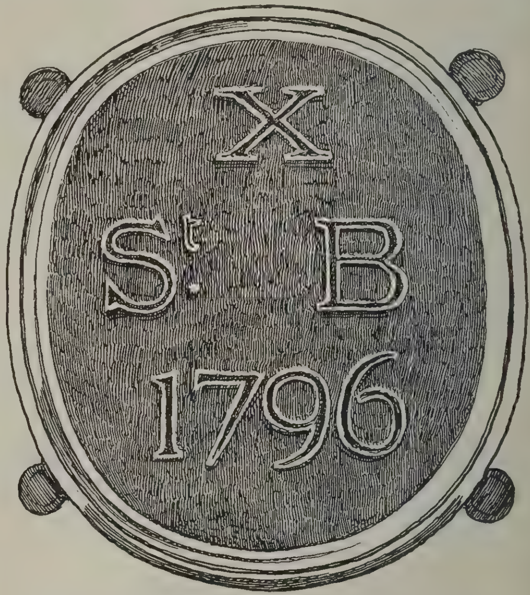
By Charles G. Harper.

The City of London, " the one square mile," is a place of many parochial curiosities. There is a building in Queen Victoria Street which stands in six parishes ; while, on the other hand, there is a parish close by consisting of only six houses. This is the parish of St. Mary Mounthaw, at the corner of Queen Victoria and Friday Streets, which has no church, and has not possessed one since the Great Fire of 1666. Since that time the parish has been united ecclesiastically with that of St. Nicholas Cole Abbey. " Mounthaw," which we may well call the " surname " of the parish, derives from some forgotten benefactor, whose name was thus attached to that of St. Mary for the sake of distinguishing it from other " St. Mary " parishes—such as St. Mary Aldermary, St. Mary Magdalene, Milk Street, St. Mary Woolnoth, St. Mary Somerset, St. Mary Bothaw, St. Mary Magdalene, Old Fish Street Hill, St. Mary Staining, St. Mary Abchurch, St. Mary Woolchurch, St. Mary Colechurch, St. Mary-at-Hill, and St. Mary-le-Bow. The need of these cumbrous, though picturesque titles is obvious in the case of so favourite a dedication, of which in the City there were, as already shown, thirteen. The whole of the parish of St. Mary Mounthaw is shown in the accompanying illustration, in addition to one other house in the adjoining parish of St. Mildred, Bread Street. It should be added that the parish of St. Mary Mounthaw was once somewhat larger, and that it was reduced to its present dimensions by the improvements of 1854, when Queen Victoria Street was made, through a maze of crooked lanes.


A PARISH OF SIX HOUSES.
ST. MARY MOUNTHAW.

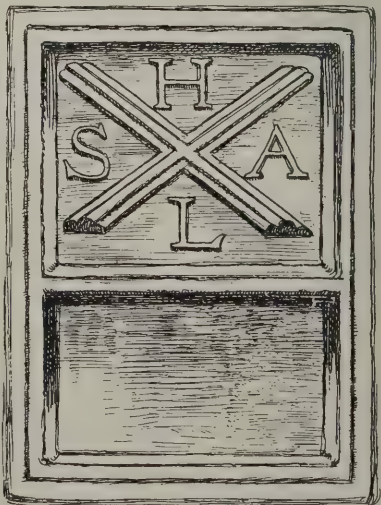
The extent and boundaries of a City of London parish may easily be seen and noted by any casual wayfarer, for the boundary houses are all marked with cast-iron plates fixed to the wall on the first-floor level. At the same time, although each of these parish frontiers may thus readily be noted, no one not well versed in the history and topography of the City would be in the least likely to understand either the devices or the mere initials with which these identification plates are decorated ; because most of them are the initials and symbols of parishes which either do not now exist as separate units of local government or are irremediably obscure.

When the monk Fitzstephen, at the close of the twelfth century, wrote his detailed description of London, the earliest description that has survived, there were, according to his account, 126 parish churches in the City, in addition to thirteen large conventual establishments. There are now 109 parishes, and three others in the City Liberties, but only some 45 churches ; and since 1908 these 109 parishes, which altogether cover only 500 acres (excluding the streets), have been amalgamated for the purposes of assessment to rates. The total rateable value was then £7,000,000. By the abolition of overlapping authorities and redundant official posts and the like economies under the Union of Parishes Act of 1907, £65,000 was saved annually, and 140 functionaries found their occupations gone. But we are not to suppose that the parishes thereby altogether lost their separate identities. They survive in some respects ; they are more substantial than the memories of the 35 ancient churches which were not rebuilt after the Great Fire of London, 1666, whose ravages had destroyed no fewer than 89.



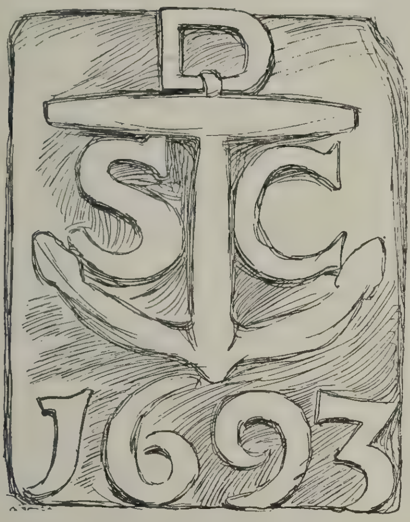
ST. BARTHOLOMEW-BY-THE-EXCHANGE.

Among the singular anomalies abolished when the Union of Parishes Act came into operation in 1908, none was more remarkable than the case of the parish of St. Christopher-le-



ST. ANDREW, HOLBORN.

Stocks. The Bank of England is situated in three parishes: St. Margaret, Lothbury, St. Bartholomew-by-the-Exchange, and St. Christopher-le-Stocks. Of the churches of those parishes only that of St. Margaret's remains. That of St. Bartholomew stood where the Sun Fire Insurance office is now situated, and was taken down in 1841, being re-erected in Moor Lane, Finsbury; and St. Christopher-le-Stocks was removed in 1781, when the Bank of England was built. In the parish of St. Christopher-le-Stocks, which consists entirely of parts of the Bank of England and of the Royal Exchange, there are no inhabitants, no churchwardens, no overseers. Thus the Bank, being the predominant partner, had control of the parish machinery, and became its own assessment authority. An arrangement had long been in force between the Bank and the Royal Exchange whereby the rates of the parish were paid approximately in the proportion of three to one by these only two ratepayers. The Bank assessed itself, on its St. Christopher-le-Stocks portion, at £23,000; and at that figure it remained for more than forty years. Those happy days were ended by the Union of Parishes Act, when the City Corporation became the rating authority; for the assessment was thereupon raised to £50,000. The complete Bank of England assessment, in all its three parochial aspects, was raised from £73,000 to £110,000; implying an increase in rates to be paid annually of over £10,000.


ST. CLEMENT DANES.

The parish marks already referred to were originally in stone, as may yet be seen on a house in St. Andrew's, Holborn, parish, where a St. Andrew's cross between the etters " S.A.H.L." marks a boundary; as also in New Square, Lincoln's Inn, where a sculptured stone dated 1693, and bearing an anchor device, with the letters " S.C.D.," bears company with one on the next house dated 1691, and with cross-billets and the initials " S.G.F." These two old stones delimit the boundaries respectively of he parishes of St. Clement Danes and St. Giles-in-the-Fields.

The larger number of these marks are, however, in cast-ron. The dates with which they are all provided have no xceptional significance, apart from the fact that it was hen found convenient to replace the older ones. That marked " St. M. le Q. 1799," on a house in the eighbourhood of Paternoster Row, is a mark of t. Michael-le-Querne parish, whose church was one of hose destroyed in the Great Fire and not rebuilt. That marked " All H.H.L." is to be found on one of the old ouses in Honey Lane Market, leading out of Cheapside, portion of the little parish of All Hallows, Honey Lane. The St. Mary-le-Bow badge, and that of St. Stephen, oleman Street, are more than usually pleasing.

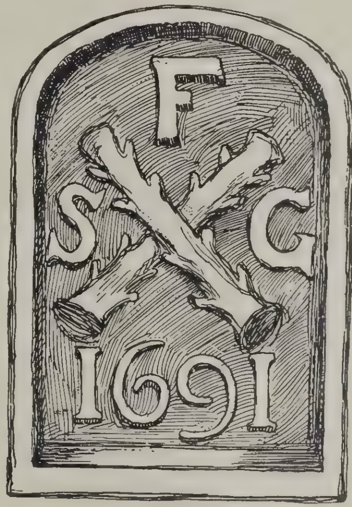
The parish mark of St. Andrew Undershaft, whose badges ere apparently all numbered, is one of the elaborate kind, ith an allusive device of a " shaft," or arrow, and a t. Andrew's cross under it. But the actual " shaft " in the arish name was a lofty maypole that once stood in the arish. As Stow, the historian, says: Every year (on May Day in the morning), it was used that a high or long shaft or Maypole was set up there, before the south door of the church. It was generally higher than the church tower itself. The last time it was set up was May Day 1517; but it hung by the wall on hooks, in Shaft Alley, until the short reign of Edward the Sixth. It was then destroyed in a curious early Puritan frenzy, following a violent sermon preached at Paul's Cross, when the preacher, referring to it, had bitterly declared the people had made an idol of it, even naming their parish after that symbol of riot and revelry. The crowd then hurried off, took the maypole off its hooks, sawed it in three pieces, and burnt it.

At the rebuilding of the City after the Great Fire, many parishes were ecclesiastically united under the terms of the Act of 1670. Sixty-six parishes were thus united as 33, with 33 churches; three parishes were united, with one church between them; and 40 other parishes had each its own church. Thus in the seventeenth-century rebuilding of the City the 109 parishes were represented by 74 churches.

A curious but little-noticed evidence of the City of London's numerous church steeples, as viewed from Bankside, Southwark, in 1842, when the "Illustrated London News" was first published, is seen in the old original engraved title of that publication, which displayed them all. Many changes have since been wrought by which that view is now very considerably qualified. Loftier City buildings have arisen to derogate from the dignity of spires and towers; but the great east and west display of St. Paul's Cathedral yet rises in its olden majesty above the squalid wharves of the riverside, and the noble cupola still is the overlord of a striking architectural grouping, even though some individual spires have disappeared. There is, however, a prominent addition, but it is an impertinence which a better taste would not have permitted: the imitative cupola of the new Central Criminal Courts in the Old Bailey.

The City churches have been greatly reduced in number. The reduction began quite early, with St. Christopher-le-Stocks, 1781; St. Martin Orgar, 1824; St. Martin, Crooked Lane, 1830, which was removed to make way for the approach to the new London Bridge; and St. Bartholomew-by-the-Exchange, 1841, as already mentioned.

But it was the Union of Benefices Act of 1860 which accelerated the reduction. A progressive depopulation of the City of London had for many years been a feature of City life. We cannot now easily realise those times when Broad Street, for example, was largely residential; when the City merchants not merely did business in the City, but lived in it. As time went on they moved outside, and came up to business in the morning, many among them riding horseback. They retired to Stamford Hill in the north, to Clapham in the south, among other places. The father of Macaulay, the historian, was of those who resided at the then rural retreat of Clapham Common. Ruskin's father, that prosperous wine merchant, had his house at first in Bloomsbury, and then in what was then the country at Herne Hill.


ST. GILES-IN-THE-FIELDS.

(To be concluded.)

Use and Misuse of Colour in the Theatre.

At a meeting of the International College of Chromatics held on March 15 at Caxton Hall, Westminster, an address on the above subject was given by Mr. J. Stanley Beard, M.S.A., an architect whose "Amber and Purple" theatre at Hendon aroused some discussion.

In the course of his introduction the lecturer alluded to the great responsibility of an architect in his control of the spending of huge sums of money. Clients who built theatres and cinemas were divided into two classes. First was the wealthy showman whose one idea of decoration was to gild every moulding and ornament and to introduce a plentiful supply of mirrors into every possible or impossible place. This was an extremely difficult type to handle, demanding great firmness. The other type was the limited company of shareholders, each one of whom had irreconcilable ideas. If the architect is wise he will quickly admit the impossibility of pleasing them all, and will therefore only try to satisfy his own ideals. Though an architect often occupies a position of splendid isolation, this does not save him from the kicks if his building is considered a failure.

Just as recreation and amusement are necessary to a well-balanced life, so also is there a need for colour in our lives. Do we not speak of a colourless existence as something to be avoided? Again, there are such phrases as a "jaundiced view," "a rosy or black outlook," "seeing red," or "feeling blue." All these expressions are founded on scientific truth as to the effects of colours on human temperament. They also prove the importance of a proper use of colour in places of amusement.

The need of colour has been recognised through all the ages. The ancient Egyptians were masters of colour, as may still be seen in the wonderful reds and blues of their lotus lily capitals and columns, and also in their pylons, which even to-day present striking examples of practical art. The Greeks obtained the same effect with their great variety of coloured marbles—Vert antique, Tinos, Black, and Sicilian white. In their open-air theatres colour was obtained by a proper blending of gorgeous togas. The Romans, although utilitarian to a degree, obtained the necessary effect in their amphitheatres by means of coloured canopies over the more expensive seats. Remains at Pompeii prove they were masters of the art of colour in their luxurious public baths if not in their houses. Architects during the great church building period of the Middle Ages recognised the devotional effect of colour on the emotions and introduced brilliant and contrasting tints into the glazing and screens, while the vestments rivalled the birds of paradise. With the Puritans came a reaction. Beautiful carving and colouring returned to its own in the time of Queen Anne. Another emotional reaction occurred in the time of the Victorians, to which we owe our drab and colourless streets. To-day we are busy learning as much as possible of the laws governing the use and misuse of colour. The struggle for existence in a ruthless commercial age makes our lives colourless. Consequently there is need for beautiful and restful colours in places of amusement. In the past there has been much misuse of colour in theatres both on the stage and in the auditorium—due in part to the responsibility for different portions of the work being divided up among different people. The results were far from soothing for tired or jaded nerves. In the music-hall they produced the red-nosed comedian, inebriated mothers-in-law, and faithless wives and husbands.

Impetus was given to the crying need for a change by the birth of the moving picture. Two years ago, said Mr. Beard, a brilliant man died at Brighton in almost dire need of the necessities of life; but his name will go down to history as the inventor of the cinematograph. About 1909 a few bold spirits took leases of some disused chapels and also converted a couple of large shops into cinemas. These pioneer halls are almost extinct now. So rapid has been the process of evolution, they are referred to by an unfeeling London County Council as "Flea Pits." In 1910 the lecturer designed and built at Fulham the first cinema which was erected in London purely for that purpose.

The cinema presented an entirely new problem in illumination. For the sake of the projection it was necessary to have darkness. But the L.C.C. insisted upon a certain amount of light to enable the audience to see their way about. The problem was solved by introducing hideous red lamps, as that colour was found to be innocuous to the screen. But this colour killed all others except red. There arose a great trade in Rose-du-Barri, and a beautiful colour was prostituted without rhyme or reason. About this time considerable strides forward began to be made in stage lighting in the legitimate theatre. A few architects, sons of evident Bolsheviks, said "If we are to design the building we must also design the equipment, even the carpets and fittings." The owners, seeing in this nothing but a plot to gain increased fees, objected. But their resistance was badly shaken when the Press unmercifully slated the decoration of a recent new theatre.

The lecturer, in describing his own share in the recent advance, said he was happy in his Hendon commission to meet promoters who, knowing little of the cinema trade, gave him a free hand and allowed him to experiment as to colours and illumination. The result was to discover amber lighting, which had been called the "Ray of Happiness" colour. To-day it was generally adopted for cinemas, and it opened out a new field of decoration.

Town Planning Institute.

North of England Division.

The movement in the North for a branch of the parent body in the Northern Counties reached fruition on March 16, when a meeting, followed by a dinner, was held in Manchester.

The following were elected as the first officers of the new Division:—

Chairman.—Mr. Carby Hall, C.B.E., F.R.I.B.A., Leeds.
Vice-Chairman.—Mr. Sydney A. Kelly, F.S.I., Liverpool.
Hon. Secretary.—Mr. J. Hembrow, A.R.I.B.A., Manchester.
Hon. Treasurer.—Mr. F. W. Platt, F.S.I., Manchester.

The first Executive Committee elected was as under:—

Mr. W. T. Lancashire, M.Inst.C.E., Leeds, Member.
Mr. Fred Marsden, M.Inst.M. and C.E., Bradford, Member.
Professor P. Abercrombie, M.A., A.R.I.B.A., Liverpool, Member.
Mr. J. Crossland, L.R.I.B.A., Bolton, Member.
Mr. W. B. Pindar, Hunslet, Legal Assoc. Member.
Mr. Percy Morris, A.M.Inst.M. and C.E., Wakefield, Assoc. Member.
Mr. H. Jenkinson, Bradford, Assoc. Member.

Mr. Carby Hall was elected as representative of the Division on the Institute Council.

A resolution was passed recommending that the usefulness of the Journal of the Institute be increased by the appointment of an official editor, whose duty it should be to collect internal and external news, it being felt that the lack of any feature other than the publication of papers on the academical side rather restricted the usefulness of the publication.

The policy of the new Division was discussed, but not defined. It was decided to wait until a sufficient number of meetings had been held to ascertain the full views of the members themselves.

At dinner in the evening the guest of honour was Mr. H. V. Lanchester, the President of the Institute, together with Mr. Pepler, Mr. Davidge, Major Lovelock and Mr. Soutar.

Mr. Carby Hall proposed the toast of the President and members of the Council, and paid tribute to the ready way in which the Council had met the Sub-Committee in the preliminary work.

The President replied, and afterwards proposed the toast of the Northern Division. He said it was fitting that the movement should come from Manchester. There was a saying which he would not quote, but with which they might or might not agree, that this event rather showed to be true. He caused amusement afterwards by saying he felt it quite likely that the reason that the North was showing such enterprise in town-planning was because they needed it so much.

Mr. Pepler commented upon the fact that the wide roads came from the North, that Leeds had planned a road 150 feet wide, Liverpool 120 feet wide, while the widest arterial road in London was only 100 feet.

Mr. Carby Hall, in responding, said that it was interesting to note that the new Division represented over a quarter of the population of England and Wales, and contained nearly six hundred local authorities, including forty county boroughs and fifty municipal boroughs.

Mr. Davidge proposed the toast of the Sub-Committee, coupled with the name of the Hon. Secretary, mentioning them all by name, and said that all wished the greatest success to the new Division.

Mr. W. T. Lancashire, who responded for the Sub-Committee, said that the idea of a Northern Division was no new thing: that some years ago it was put up to the Council, but for some reason nothing was done. It had, however, been taken up recently by their energetic Hon. Secretary, who should be congratulated on seeing the movement brought to such a successful issue.

Mr. Hembrow laid emphasis on the point that it was their idea to strengthen the Institute and not to break away from it, as he understood it had been suggested; that unless the Institute gave its more distant members facilities for meeting together in spots less remote than London, there was a danger of independent organisations arising which might quite well be beyond their control.

Mr. F. Sutton Smith, P.A.S.I., has commenced practice as an architect and surveyor, at 8, Ross Parade, Wallington, Surrey.

"The Architect" Fifty Years Ago.

April 5, 1873.

The Holborn Viaduct Extension Railway, Station, and Hotel.

The works in connection with the Holborn Viaduct extension of the London, Chatham and Dover Railway Company, which have been in progress for more than twelve months, and which we described shortly in our last volume, are now being pushed forward in anticipation of the intention of the directors to open the extension line for traffic in the course of the ensuing summer, the month of July being now fixed upon as the probable time for the opening. Upwards of a thousand artisans are at present employed upon the several portions of the works between the Holborn Viaduct and the junction of the new high-level line with the existing railway, a little more than 100 yards northwards of the Ludgate Hill station.

The new high-level line from Holborn, which is carried on a series of brick arches east and west of the present railway, and by iron girders immediately over it, to the point of junction almost opposite Messrs. Cassell, Petter & Galpin's printing establishment, is now nearly completed. The whole of the arches on the west side are already finished, and those on the east side are quickly advancing towards completion, whilst the iron girders over the old low-level line are nearly all in their places, and within the next few weeks the works will be so far advanced as to admit of the permanent rails being laid down, and the communication between Holborn and the Ludgate Hill station effected. There will be six lines of rails, or three double lines, from the Holborn terminus to the point in the direction of Ludgate, where the new lines converge and fall into the existing line. The platforms, four in number, will be 450 feet in length, in addition to the main-cross platforms at the north boundary of the station, running parallel with the Viaduct. The central platform will be 25 feet in width, and the other platforms 20 feet in width each.

Simultaneously with the construction of the railway, the several station buildings and offices are also in course of erection. The parcel offices, which form a distinct and extensive block, are situated on the west side of the line. They are upwards of 150 feet in length, and will be three storeys in height, with three entrances at the east side in the interior of the station, and the approach to them will be by Bear Alley, out of Farringdon Street, along an incline, until the high-level of the parcel offices is reached. This portion of the station buildings has already been carried up to the second storey. Immediately opposite to the parcel offices, extending their entire length, and stretching across to the extreme western platform, is a large and commodious cab-rank. The approach to the cab-rank will also be *via* Farringdon Street and Bear Alley, the cabs passing out of the station on to the Viaduct, through an archway under the front of the station buildings and hotel.

Competition News.

The Miners' Welfare Committee at Swinton, near Rotherham, invite plans for the lay-out of a piece of land, about 8 acres in extent, for the purpose of an athletic ground. A premium of ten pounds is offered for the best scheme, but the Committee do not bind themselves to give the contract for the work to the successful competitor. A plan of the ground and all other particulars may be obtained on application to the Secretary, Mr. F. J. Wilkinson, "Claremont," Swinton, near Rotherham, to whom the prepared schemes and estimate of cost of same must be sent not later than April 30.

Messrs. Butler & Rodman, of New York City, received the first prize in the international competition recently conducted by "The Modern Hospital" magazine for the plans of a small general hospital. Three awards of $500, $300 and $200 and two honourable mentions were made. Second and third places were won by Mr. John Roth, of Atascadero, Cal., and Mr. Ernest Hoedtke, of Cambridge, Mass. Selection was made from fifty-one sets of plans submitted by hospital architects of the United States, Canada and England, judgment being on the bases of economy in construction and operation, integrity of designs, health values and flexibility. First honourable mention was given to Messrs. Cervin & Horn, hospital architects, of Rock Island, Ill., and the second to Lemuel Cross Dillenbach, of the school of architecture, University of Illinois. The jury of award, composed of Dr. S. S. Goldwater, of New York, Asa S. Bacon, of Chicago, Clarence H. Johnston, of St. Paul, William Buck Stratton, of Detroit, and Miss Adelaide M. Lewis, of Kewanee, Ill., met in Chicago in March to study the plans. Announcement of the winning architects will be made in the April issue of "The Modern Hospital," and in the succeeding number will appear the prize plans with the interpretations of the judges. Subsequent publication, with critical comments, will be made of fifteen or twenty other of the more interesting designs for their educational value.

A Walcot Exhibition.

An Exhibition of drawings by Mr. William Walcot will be held in the Galleries of the Royal Institute of British Architects from April 7 to April 28, 1923.

The Exhibition will include "Some Great Temples of Antiquity." These drawings were executed at the British School at Rome. Dr. Thomas Ashby, the Director, and Mrs. Arthur Strong, the Assistant-Director, assisted Mr. Walcot in his researches in the Library of the School. The "Roman Compositions" and other etchings will also be shown.

The Exhibition will be open to the general public (free) from 10 a.m. to 6 p.m. (Saturdays 10 a.m. to 1 p.m.).

The Society of Architects' Scholarship to America.

The Society of Architects has instituted a Scholarship of the value of three hundred pounds (£300) to be offered annually for three years in succession and afterwards at such periods as may be decided upon, for the encouragement of travel for the purpose of studying modern architecture abroad. The holder of the first (1923) Scholarship will be required to visit America for a period of not less than six months or more than twelve months in order to prepare and afterwards to submit to the Society a report bearing upon some aspect of the development of modern architecture, such as will form a valuable addition to the information and original thought at present available on the subject.

Candidates must be British subjects under the age of forty years, and the Scholarship will be awarded by the Society on the recommendation of a Jury of well known British architects who will have the advice of a prominent American architect. One essential qualification will be the production by the candidate of evidence of a very high standard of architectural attainment.

There is no entrance fee, and potential candidates may register their names at once with The Society of Architects, 28, Bedford Square, London, W.C.1, for particulars of the conditions and entry form when issued.

Forthcoming Events.

Saturday, April 7.—Royal Institute of British Architects. Visit to Messrs. Selfridge and Co.'s Building.

Institution of Municipal and County Engineers.—North-Eastern District Quarterly Meeting at Durham.

Monday, April 9.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Paper by Mr. H. M. Fletcher, F.R.I.B.A., entitled "The Architecture of Provincial France." 8 p.m.

Surveyors' Institution. Meeting at 12 Great George Street, Westminster. Discussion on the Report of the Departmental Committee on the Rent Restriction Act.

Tuesday, April 10.—Surveyors' Institution. Annual Dinner at the Connaught Rooms, Great Queen Street, W.C.

Wednesday, April 11.—Reading Society of Architects. Annual Meeting at University College, Reading. Paper by Mr. Herbert Maryon on "Sculpture."

Thursday, April 12.—Sheffield, South Yorkshire and District Society of Architects. Annual General Meeting.

Incorporated Institute of British Decorators. Annual General Meeting at Painters' Hall, Little Trinity Lane, E.C.

Friday, April 13.—Institution of Heating and Ventilating Engineers. Smoking Concert at the Engineers' Club, Coventry Street, W.1. 7 p.m.

Saturday, April 14.—Edinburgh Architectural Association. Joint Visit with the Cockburn Association.

Messrs. Redpath, Brown & Co., constructional engineers, Edinburgh, have inaugurated a scheme for employees' welfare, the object of which is to ensure against unemployment, under-employment, and sickness. The scheme is additional to the national schemes established under the Unemployment Insurance Acts and the National Health Insurance Acts and to any further provision which may be made through other agencies. A special club is to be formed to administer the scheme, and all employees who are 16 years and over are eligible for membership. The employees' contributions are to be deducted from wages, while the company will carry to the credit of the club £1,000, and will thereafter pay into the funds of the club weekly 4d. in respect of each adult and 2d. for each juvenile member. No contributions are payable by employees for any week during which neither wages nor benefits are drawn. In periods of difficulty unemployment benefit will be paid out to members up to 25s. per week, partial unemployment benefit, sickness benefit, and provision for the funeral expenses of relatives, and temporary loans.

Birmingham Architectural Association.

At the tenth and last general meeting of this session of this society, held on March 9th, a paper was read by Mr. Benjamin Walker, A.R.I.B.A., on the "Annual Excursion to Bruges, 1922."

The distance from Birmingham to Bruges is so small, said Mr. Walker, that it is easily possible on the morning of any week-day to stand in Victoria Square and hear the clock of the Art Gallery strike ten, and in the evening of the same day to stand in the Grand Place and hear the same hour struck upon the bells of the Belfry of Bruges. Measured thus, less than twelve hours separates the two towns; measured in other ways, the distance between them must be reckoned not in hours, but in centuries, for Birmingham is pre-eminently a town of to-day, whereas Bruges is essentially a town of the fifteenth century. It was to this town, in whose narrow streets the spirit of the later Middle Ages still seems to linger, that the members of the Association decided to go for their usual Whitsuntide sketching excursion, and their choice was justified by the pleasure they derived from their visit.

To properly appreciate Bruges, its position on the map should be studied, both from a political and orographical point of view. Its position and relation to the towns in the Rhine Valley and Germany, and in relation to the Paris basin of Northern France, should be noted, and also the configuration of the land around. Bruges is situated in a plain which formed a natural and easy highway between Germany and the Baltic on the north and France on the south. This, the plain of Flanders, was the meeting place of the Romanised Celtic South and the Teutonic North-east, and has been a zone of strife through all the ages. Their situation being such, Bruges and the other towns of the district are not built round the Cathedral as in the towns of the Paris basin, but round the Belfry, or Bef-froi as it is called. Although sometimes containing bells, this was principally a watchtower from which the whole of the plain could be surveyed and a first entry of invaders detected. Flanders might be overrun from the south, the north-east, and more rarely from the sea on the west, from which direction came the Northmen in the ninth century. Bruges owes its origin to this invasion, having been chosen by Baldwin Count of Flanders as the site for his castle. Baldwin had been entrusted by Charles the Bold with the defence of this portion of his dominions. He built his castle on a small tongue of land at the junction of the Roya and the Boterbeke. This was the nucleus of Bruges and, the castle having disappeared, is now the Place du Bourg. Subsequently its position caused Bruges to become the chief port of entry of the raw wool from Britain, which came by way of the Zwyn, a stream which at that time ran into the river Scheldt. In the fourteenth century the population of Bruges was 250,000. Twenty foreign consuls occupied palaces in the city, while merchants from every country of Europe bought and sold in her markets. This was the climax of her prosperity, for as early as 1410 the navigation of the Zwyn had become difficult and by 1550 Bruges was altogether cut off from the sea. During the period of her greatness building activity was marked, and many beautiful structures, mainly of brick, testify to this. Near the Grand Place, from which it is reached by the short Rue de la Bride, is the smaller and much more interesting Place du Bourg. Here, side by side, stand St. Basil's Chapel and the Chapel of the Holy Blood; the Hotel de Ville, dating from the last quarter of the fourteenth century; the Municipal Record Office, a Renaissance building of 1540 or thereabouts; and the Palais de Justice, built 1722–27. Opposite, on the north side of the Place, is the Prevote, built in 1662. Leaving the Place du Bourg by the narrow Street of the Blind Donkey, and crossing the canal, one comes to the Fish Market. Continuing by way of the Quai du Rosaire and the tree-shaded Dyver one soon reaches the Hotel Gruthuise, once the home of one of the merchant princes of Bruges and now a museum, and the Church of Notre Dame. A little farther on are the Hospital de St. Jean, where are preserved some of Memlinc's masterpieces, the Cathedral of St. Sauveur and the Beguinage.

Mr. Walker's lecture was illustrated by a large number of lantern slides, including some excellent ones lent by Mr. Yerbury of the London Architecural Association. There were also exhibited several watercolour drawings and other sketches made by members on the excursion.

Acting on counsel's opinion, the London County Council has lodged a claim against the Government for (roughly) one and a half million sterling, as compensation to the Council for interference with the building of the County Hall during the war. The Office of Works has intimated that application is being made for the War Compensation Court to hear and determine the claim. The L.C.C. has therefore decided to be represented by counsel before the Court.

Glasgow Institute of Architects.

At the annual meeting of the Glasgow Institute of Architects, the following office-bearers were elected:—President, Mr. James Lochhead, F.R.I.B.A.; vice-presidents, Messrs. George A. Paterson, Lieutenant-Colonel J. Maurice Arthur, and George A. Boswell. The council for the ensuing year were elected as follows:—Messrs. William B. Whitie, J. H. Craigie, Colin Sinclair, G. A. Paterson, Andrew Robertson, John Watson, Launcelot H. Ross, A. G. Henderson, J. Maurice Arthur, J. Archie Wilson, William Cowie, William J. Blain, Ed. G. Wylie, George A. Boswell, A. M'Innes Gardner, Alan G. MacNaughtan, A. D. Hislop, John Steel, J. A. T. Houston, James M'Nab, and W. J. B. Wright.

Mr. James Lochhead, the President, in his address, reviewed the work of the institute during the past year. He reminded members of the Housing and Town Planning Act of 1919, by which the council of every burgh with a population exceeding 20,000 on January 1, 1923, is required to prepare and submit to the Board of Health within three years of that date a town planning scheme, and outlined the measures adopted by the Incorporation of Architects in Scotland to see that the work is placed in the hands of competent practising architects. He concluded by referring to the degree course in architecture which it is hoped to have instituted in Glasgow University in the near future, and eventually in all the universities in Scotland.

United States Imports of Works of Art.

According to the "Trade Record" of the National City Bank of New York, the value of works of art imported into the United States during 1922 was larger than in any year since 1913. Importations of art works in the four years since the close of the war have averaged 26 million dollars a year, as against 17 million dollars a year during the war, and for the full year 1922 will total about 33 million dollars. The total value of art works imported since 1910, the year following that in which art works upward of 20 years old were permitted to enter the country free of duty, is about 350 million dollars, an average of about 29 million dollars a year. It may be estimated that Europe alone has sent nearly 150 million dollars' worth of art works out of the 175 million dollars' worth imported since the beginning of the war.

One interesting feature of this big importation of art works lies in the fact that a large proportion is of the class designated as "works of art more than 100 years old." Of the total importations of art works in 1921, the latest complete year for which details are available, those comprised in this group form slightly more than 13 million dollars, out of the total of 22 million dollars, while about 5 million dollars consist of original paintings, drawings, and pen-sketches, the remaining 4 million dollars' worth including statuary, stained and painted window glass, and a limited number of works "the production of American artists residing temporarily abroad," which, however, amounted in 1921 to only 200,000 dollars.

The United Kingdom, France, and Germany were formerly the largest contributors to importations of art works, but in very recent years Italy has taken the place of Germany in the proportion of imports of this character supplied.

A Ceremonial Key.

We give above an illustration of the ceremonial key used by Princess Mary (Viscountess Lascelles) at the opening of the new Infants' Ward, Leeds General Infirmary, and made by Messrs. Joseph Kaye & Sons, Ltd., of Leeds and High Holborn.

The Birmingham Board of Guardians are faced with the necessity for a considerable enlargement of the Selly Oak Hospital. A visit of inspection is to be paid very shortly by the chief architect of the Minister of Health, and it is expected that the expenditure of £30,000 will be considered advisable.

The Birmingham Tame and Rea District Drainage Board last week sealed a contract (£27,467) with Messrs. H. C. Pullar & Co., Manchester, for the construction at the Nechells works of an additional storm-water basin, also a contract with Messrs. Lee & Brown, amounting to £1,250, for the erection of two cottages and a manager's house at Nechells.

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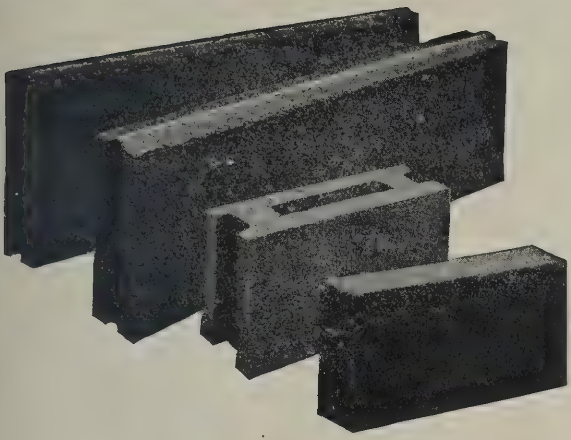

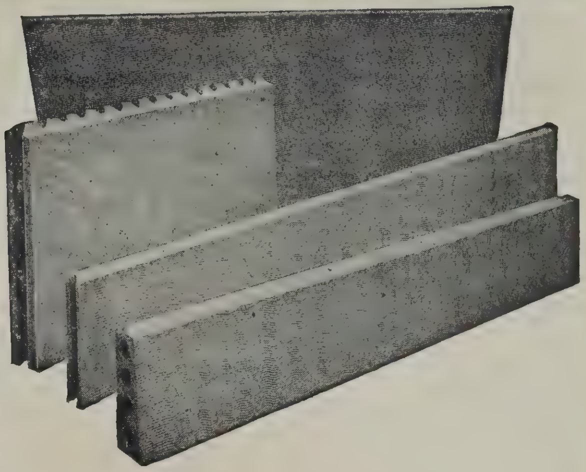

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Correspondence (*Continued from page* 239).

Brick Making Costs.

To the Editor of The Architect.

Dear Sir,—There are two matters reported, in your issue of March 23, which I think go to prove how frequently speakers make entirely erroneous statements, doubtless through want of true knowledge of the facts, and unfortunately others, who listen, are either equally misinformed, or do not like to correct a speaker's statement for fear of giving offence.

I refer to Mr. Leslie Gordon's remarks, as reported, at the meeting of the R.I.B.A. on the 19th inst., where he says "that he attributes the high cost of building to the existence of rings," and goes on to say that "while producers are still getting 100 per cent. more than before the war, the wages of the working classes are almost back to pre-war level, and are scarcely a living wage."

I do not know where Mr. Gordon obtained his "facts," but as a well-known brick manufacturer, whose firm has been in existence for over sixty years, and as one who is in close touch with the largest makers of bricks, tiles, etc., throughout the country, I can assure him that his "facts," so far as wages are concerned, are totally untrue; the rates of wages paid by our own firm, and by most others, are 100 per cent., and in some cases over that percentage, in excess of the rates paid, for similar work, pre-war, and, for a 48-hour week, at day-work rate, the lowest paid man would receive over 40s. and the average works out at 60s. and over. May I add that the proportion received by labour, direct and indirect, of the cost of making bricks is just about eighty per cent.? I include, of course, the labour costs of producing coal, transport and similar charges, where considerable labour occurs.

In the same issue, and on the same page, I see a statement, made by the President of the National Federation of Building Trades Operatives, on the price of building materials, in which he states that bricks sold in 1914 at 36s. per 1,000 are now 82s. I do not know what he means by "Best Stocks," but in most districts "ordinary wire-cuts" are used for all general work and particularly for housing schemes, cottages, etc.; in 1914 these bricks ranged from 25s. to 27s. 6d. per 1,000 at works; to-day, and for six months past, these same bricks are being sold at 50s. to 52s. 6d. per 1,000 at works, which is rather less than double pre-war, although, as I have previously stated, in an earlier part of this letter, the maker's costs are still rather more than double, without taking into account the enormously increased rates, generally three times pre-war, and the present heavy income tax of 5s. in the £; also, even the poor brickmaker must live, and it costs him, like the labourer, about one and three-quarter times to keep his family and himself. May I add that I shall be pleased to prove every statement here made to yourself or to any responsible person introduced by you?

I enclose my card, and would subscribe myself,

A Practical Brickmaker.

Building Trade Crisis.

A full meeting of the building trade employers was held at the Y.M.C.A. Hall in Tottenham Court Road on the 28th ult. The representatives of the trade throughout the country began their deliberations at 10.30, and the discussion continued, with an interval for lunch, until after five o'clock. The official statement issued to the Press was as follows:

> The meeting of employers in the building industry held in London to-day decided to instruct its members throughout the country to post notices on April 7, to take effect on April 14, for an extension of hours to forty-seven per week in summer, winter hours to remain as already in practice, and a reduction in wages in accordance with the minimum terms offered to the operatives, and which was the subject of ballot by the men recently, and other minor details, particulars of which will be given on the posters to be issued as soon as possible.
>
> As regards certain suggestions for reference of the dispute to arbitration, the position of the employers is that they have such confidence in the justice of their cause that they are, and always have been, ready to refer the whole issue to arbitration. Indeed, the employers on the National Wages and Conditions Council made a similar offer during the recent abortive negotiations, but the operatives' representatives declined to accept it.

Mr. George Hicks, the president of the National Federation of Building Operatives, subsequently made the following statement on the position:

> The retention of the forty-four hour week is too important a social reform to allow any question of a departure from it to be determined by one or more arbitrators when the conditions of half a million men are affected. Only the men themselves can decide that issue, and we cannot agree to submit the hours question to arbitration, whatever may be the position in regard to wages. Over 130,000 operatives in the building industry are unemployed, and it is a monstrous proposal to lengthen the hours of those already at work, instead of devising ways and means of getting those who are on the streets into employment. I regret the employers' decision to post the notices, but I am pleased to know that the application of the reduced wages and longer hours has been postponed for a period. I can only hope that in the interval wiser counsels on the part of the employers will prevail, and that a stoppage will be avoided.

South Wales Institute of Architects.

The Annual General Meeting of the South Wales Institute of Architects was held at the Institute Rooms No. 6, High Street, Cardiff, on the 29th ult., when the following officers were elected for the ensuing twelve months:—

President: Percy Thomas, O.B.E., F.R.I.B.A.

Vice-Presidents: H. C. Portsmouth, F.S.Arc.; C. F. Ward, F.R.I.B.A.

Hon. Treasurer: H. Teather, F.R.I.B.A.

Hon. Auditor: C. S. Thomas, F.S.Arc.

Hon. Librarian: C. H. Kempthorne, Lic., R.I.B.A.

Members.

(1) Central Branch:—J. P. D. Grant, A.R.I.B.A.; C. F. Jones, A.R.I.B.A.; A. G. Edwards, M.S.A.; T. Alwyn Lloyd, F.R.I.B.A.; W. S. Purchon, M.A., A.R.I.B.A.; Cecil Wilson, F.R.I.B.A.; J. Williamson, A.R.I.B.A.; C. J. Ward, F.S.I., Lic., R.I.B.A.; Associates' Representative, T. E. Llewellyn.

(2) Western Branch:—C. S. Thomas, F.S.Arc.; H. C. Portsmouth, F.S.Arc., J. H. Jones, F.S.Arc.; Glendinning Moxham, F.R.I.B.A.; J. Cook Rees, F.S.Arc.; Associates' Representative, G. L. Crocker.

(3) Eastern Branch:—F. Swash, F.R.I.B.A.; C. E. Tebbs, A.R.I.B.A.; R. Fisher; Associates' Representative, H. Jones.

(4) Northern Branch:—G. Vincent Evans, Lic., R.I.B.A.; J. Llewellin Smith, Lic., R.I.B.A.; Jacob Rees, M.S.A.; Associates' Representative, B. T. Jones.

Hon. Sec., Ivor P. Jones, A.R.I.B.A.;

Mr. Percy Thomas, of Cardiff, who was unanimously re-elected President for the coming year, in his address to the Institute gave a review of the progress made by the Institute during the last year, and mentioned that the beneficial effects of the Conference which was held in Cardiff last June have already been felt by the Profession and quoted cases of public bodies who had agreed to accept the R.I.B.A. Scale of Professional Charges. He also paid a warm tribute to the local Press for the great help they had given to the cause of Architecture in Wales. After dealing with the question of Registration for Architects and the efforts that are being made to train the younger members of the Profession, Mr. Thomas stated that one of the objects of the Institute during the coming 12 months would be to endeavour to promote the establishment of Advisory Art Committees in the principal cities of South Wales.

German Cement Industry.

The "Deutsche Bergwerks Zeitung" in the course of extract forwarded to the Department of Overseas Trade by the Commercial Secretary at Cologne (Mr. C. J. Kavanagh), reports that at a general meeting of the Portlandzement und Wasserkalkwerke Elsa at Neubecken the chairman gave a detailed report concerning the position of the concern, which he stated was very satisfactory, particularly in regard to the profits of the current year. He further stated that the cement industry was one of the soundest industries of Germany, but that the erection of new cement factories was rendered difficult owing to the enormous costs. Employment was such that the present factories were hardly in a position to meet demand. Concerning the future, it was stated that without doubt a great building activity would sooner or later set in in Germany in order to meet the great demand for houses. There were also the Reparation deliveries to France and the German deliveries to Holland, which country required enormous quantities of cement for regulating the Zuyder Zee. Enquiries from the British Colonies were also numerous. The chairman was of opinion that the cement shortage would be still further increased and would guarantee brisk employment for some time to come. The company realised in the past year a gross profit of 4.75 million marks. The clear profit, from which a 30 per cent. dividend was distributed, amounted to 3.03 million marks.

The Water Committee of Edinburgh Town Council recommend that three new sand filters be laid down at Fairmilehead at an estimated cost of £60,000.

Mr. G. Sinclair, A.R.I.B.A., Haddington, has been appointed by the North Berwick Town Council as architect for the proposed municipal hall.

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Telephone Facilities and Building Construction.

The Postmaster-General wishes to draw the attention of architects and all engaged in the building industry to the importance of making adequate provision for telephone service in the construction of large buildings, in order to eliminate the necessity of costly alterations later on.

Complaints are sometimes made by the owners or lessees of new buildings of the inevitable interference with the structure and decorations caused in providing telephone wiring and equipment; occupiers complain of the disturbance occasioned by the piercing of walls and floors, and applicants for service complain of the delay which sometimes occurs in meeting their requirements. The cost of the installation is also increased. By the exercise of a little prevision all these causes of friction might be avoided.

The precise requirements vary according to circumstances, but the Post Office Engineer, whose address can be ascertained at the local Telegraph Office, will, on receiving early intimation, readily furnish particulars of the needs of any proposed building, so that they may be taken into consideration in dealing with its general design.

"Dekart."

The Associated Crafts, Ltd., 69 Avenue Chambers, Southampton Row, W.C., who are the patentees and manufacturers of this new material, ask on one of their leaflets "What is Dekart?" The answer they give is: "Dekart is an entirely new material in which exact reproductions of wood, stone, plaster, glazed tiling and ornamental metalwork can be made at a cost far less than that of the real materials. Any shape, surface or kind of finish can be copied perfectly." This is not very informative as to the composition of "Dekart," so we may add that its principal constituents are tough fibre combined with a very hard composition. The fibre being carried up to the extreme face, there is no risk of chipping. Our personal opinion is that the *forte* of this material is its imitation of oak, whether plain or carved, as panelling, mantelpieces, carvings, furniture or other work. This can be achieved with quite remarkable fidelity and sympathy. There is nothing to distinguish it from real oak by sight, sound or touch, nor is there mechanical repetition of grain. It is claimed that its colouring mellows beautifully with age and wear. For ornamental work it can be as fine and delicate as Grinling Gibbons where fineness is required. When used as panelling it is easily and quickly fixed with screws or brassiers, and then screwed into wall plugs. A point to be noted is that nails or screws can be driven up to the extreme edge without any danger of splintering. It is sawn like wood, and is readily adapted to awkward situations. In strength it is practically equal to wood; in cost it may be as much as 50 per cent. less.

Although "Dekart" practically made its bow to the public at Olympia two or three weeks ago, we may add it has most emphatically left the experimental stage. A recent important contract was in connection with the G.E.C. showrooms at Birmingham, where, amongst other things, it was subjected to the searching test of being used as a casing for the steam heating pipes. This latter bears out the patentees' contention that it is fireproof and damp-proof, and will not crack or shrink, even if fixed to wringing-wet walls or ceilings. It has been passed by the London County Council as fireproof. Indeed, we understand that on one job where the odd pieces after completion were taken to the local destructor, the furnace was thereby extinguished. Ceiling sheets are supplied with a white surface, and are given a perfect finish with one coat of distemper. The panelling can also be obtained with a glazed finish for kitchens, nurseries, hospitals, etc.

The uses of "Dekart" as metalwork and tiling are also interesting. The former is particularly adaptable for electric light fittings, and some very handsome effects can be obtained when used in conjunction with "Dekart" carved oak. The tiling, being unaffected by steam or heat, is equally suitable for hearths surrounds or bathrooms.

Mr. Basil Oliver, F.R.I.B.A. has removed to new offices at 148, High Street, Kensington, W.8. His telephone number is Park 5943.

The London County Council have agreed to allow the Charing Cross Exhibition, arranged by the London Society, to remain open in the Old County Hall for another fortnight—*i.e.*, until Friday, April 13.

The Middlesex County Council have conditionally accepted the tender of Roads and Public Works, Ltd., for £160,555 16s. 2d. for the widening, diversion, and improvement of Windmill Lane, Oldfield Lane and Greenford Road, from the Iron Bridge, Southall, to the District Railway at Sudbury Hill Station.

General.

Mr. J. W. F. Phillipson, M.S.A., Gateshead and Darlington, is the architect for a central hall and classrooms about to be erected for the Primitive Methodists at Outwood.

The West Riding Education Committee have received the approval of the Board of Education for the provision of "Middle" or "Central" schools at Rothwell and Wombwell to cost £16,000 and £12,000 respectively.

The Ellesmere Port Council intend to seek the sanction of the Ministry of Health to the erection of a further instalment of 200 houses on the terms arranged by the Ministry of Health for a subsidy of £6 per house per annum.

The Rotherham Rural Housing Committee are about to put before the Ministry of Health a scheme for the erection of 400 houses under the new subsidy scheme. This would practically complete the Council's original programme for the area.

Leicester Estates Committee has expressed agreement with a suggestion for building an arch on the Victoria Park as a war memorial. It has been arranged to confer with Sir Edwin Lutyens on the selection of the most suitable position.

Forres (Elginshire) Town Council have accepted an offer of £10,000 from Mr. Alexander Edward, of Sanquhar, for building workmen's houses of an approved type, with large garden plots. The capital sum at once becomes the property of the Town Council, but interest at 5 per cent. is to be paid during Mr. Edward's lifetime.

At a private meeting in Manchester last week of creditors of the National Building Guild, Ltd., a resolution was passed in favour of immediate steps being taken to bring about the compulsory liquidation of the Guild. All the creditors will now be written to with a view to taking the best measures possible in the circumstances.

Mr. F. W. Rees, M.S.A., M.C.I., Architect and Surveyor, of Croydon, has taken into partnership Mr. A. Archer-Betham, A.R.I.B.A., of 59 Oakley Street, Chelsea. The firm will be known as Messrs. Rees and Archer-Betham, Architects, Surveyors and Civil Engineers, and will practise at 44 Park Lane, Croydon, as heretofore.

Leicester Housing and Town Planning Committee, having regard to the new housing subsidy, have recommended the City Council to proceed with the erection of 179 parlour-type houses and 114 non-parlour type. The committee also propose that tenders be accepted for constructing roads and sewers on an estate suitable for providing sites for 138 cottages.

The Royal Institute of British Architects has just published its annual announcement of the prizes. These include a Travelling Studentship of a total value of £500, and others of £150, £100, £75, and lesser amounts. The total value of the prizes and studentships offered this year is nearly £2,000. Full particulars can be obtained on application to the Secretary of the R.I.B.A.

Mr. Reginald Fairlie, the architect who has been elected to associate rank of the Royal Scottish Academy, is a native of Fife. He received his early training with Sir Robert Lorimer, A.R.A., R.S.A., and afterwards studied in London and Italy. Mr. Fairlie has been in practice in Edinburgh since 1909. His work has been principally church architecture, and he has designed about fifteen churches in Scotland. He also acted as architect in connection with the restoration of the Norman church at Leuchars. The war memorials designed by Mr. Fairlie include those at Blairgowrie, Moffat, and at the Royal and Ancient Club-house at St. Andrews. During the war Mr. Fairlie served in the Royal Engineers from 1915 to 1919, and saw service in France.

Trade Notes.

The British Portland Cement Manufacturers, Ltd. held their twelfth ordinary general meeting at River Plate House, Finsbury Circus, E.C., on March 27. The report states that in spite of many difficulties the profits have been fairly maintained at £451,222 10s. 9d., which compares with £479,762 2s. 10d. in the previous year. This has been achieved principally by reductions in the cost of production. Provision has been made in respect of the estimated liability for income tax and corporation profits tax. The sum of £125,000 has been placed to general depreciation reserve and £5,000 to barge depreciation account; in addition provision has been made for the debenture stock sinking fund. The directors recommend the payment of a final dividend of 5 per cent., less income tax, on the ordinary shares, making 10 per cent. for the year.

Boyle's latest patent "Air-Pump" ventilators have been applied to the stores of Messrs. William Whiteley, Ltd., Bayswater, London, and also to Island Glas and Neist Point Lighthouses, Scotland. They were supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

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The Threatened Strike

Unless wiser counsels prevail at the last moment we may see the building industry held up by a strike when all indications make it probable that it is on the eve of a period of greater activity. It does not seem to us to be an occasion on which either party in the controversy is wise in insisting on minor points of legal justification, but one in which both builders and operatives should endeavour to determine in what manner they can prove themselves most useful to the general community, and this can, we believe, be effected without the surrender of *kudos* or of material benefits on either side. After a study of the agreement reached between masters and men, it appears to us that the master builders are justified in claiming that they have complied with the agreement made, and have a clear right to ask for a reduction in wages and a lengthening of working hours during the summer months. It also seems clear that by working slightly longer hours the building trade operatives will, as a whole, be in receipt of wages little if any less than those which they are at present receiving.

The reasons advanced for the proposed changes are, firstly, that the high cost of building is keeping back work, and, secondly, that the wages paid are much in excess of those paid in other trades, especially in the shipbuilding industry, where reductions of something like 40 per cent. have been accepted by the operatives. As against this it may be pointed out that a ship can be built or repaired in foreign ports, and thus the industry has to compete with foreign rates in many cases lower than those current here. In addition, most of the work connected with shipbuilding can be carried on through wet weather, the incidence of which directly affects the wages of many building craftsmen, notably bricklayers, masons, and others, and, to a lesser extent, carpenters. It follows that the craftsmen in such trades should or ought to be in receipt of wages which make some allowance for enforced periods of idleness. It is also self-evident that the building industry is automatically protected against foreign competition. Building, in a word, must be carried on by English labour, and only high prices or bad trade or over-production can affect it prejudicially. High prices have stopped much building which would otherwise have gone on, but what has probably been even more prejudicial is the unreasoning belief, still prevalent in the minds of many, that the cost of building can be reduced to something approaching its pre-war level; an optimistic idea which, fostered by ignorant writers in the daily Press, is hard to kill. Those who have had more experience know that the ultimate mean level of prices must, as far as can be seen, be something like 60 per cent. or 70 per cent. above pre-war prices, and there seems no reason why building which has to be undertaken within the next few years should not be put in hand at once. We believe that the question of rates of wages is relatively unimportant, and might with wisdom be left for the time being by the employers as they are at present, on condition that the building operatives would meet the masters squarely and fairly on the infinitely more important questions of hours and output. In doing so they would help a sorely harassed industry for which brighter days of prosperity may be in store.

As things stand neither side has the sympathy of the public or will gain its whole-hearted support, but it is open to both to gain it, or, on the other hand, for either to set the example of wise compromise.

Admittedly, if buildings like steelwork could be imported ready made the building craftsman would be forced to go workless or to accept reductions in wages which would enable the public to obtain the results of British labour as cheaply as that of the foreigner. As these conditions do not obtain, it is natural and proper that the craftsmen in the building trades should demand wages which, considering the cost of what they have to pay for food and wages, are by no means excessive.

It is equally clear that the cost of building is so high compared with what it was that the greatest stimulus that can be given is a reduction of working costs, and that this reduction of working costs can be effected without any lowering of wages if only the men's leaders will frankly co-operate with the masters both in their own interests and in those of the public.

We can no longer believe in the spirit of optimism which followed the Armistice that the country could and would pay high prices for ineffective work. After the curse of War had passed away it was perhaps excusable to believe that all things were possible, but disillusion has now convinced almost all of us. We know that instead of standing on the threshold of a future prosperous beyond our imaginings, it will take us years of hard and difficult striving to regain the fortunate position in which we stood in the summer of 1914, and to place us on our old footing it is necessary for every class to work well and efficiently, and we should not search for nice points to justify strife and dispute but look to the broad facts—a consideration of which should convince all of us that peace, goodwill and mutual effort are the only factors which we can confidently reckon on to restore a sick world to political health.

Meanwhile it should be clearly understood that the contractors are not, as is frequently stated, locking out the men, but formulating a slightly reduced scale of payment and a readjustment of hours, so that any stoppage of work will take the form of a strike of the operatives and not a lock-out on the part of the employers.

We summarise the position in this manner. The strike ought to be avoided. The masters, though justified legally, seem to us to have made a tactical error in coupling a demand for longer hours and more efficiency with a small reduction in wages, so small that its effects are unlikely materially to cheapen building, especially should they be, as is likely in any case, very unwillingly accepted by the operatives. On the other hand, the men's leaders are wholly unreasonable in resisting the demand for slightly longer hours, and are not justified in the extreme attitude taken as to reductions in wages which need not affect the sum total earned by the men in a working week. The general public has, we believe, good reason to blame both parties for a dispute which never should have been allowed to become acute.

Our Illustrations.

ADDITION TO FACTORY, WOOD GREEN, N., FOR MESSRS. BARRATT & CO., LTD.

P. J. Westwood and Emberton, AA.R.I.B.A., Architects.

The building illustrated is an addition to the factories of Messrs. Barratt & Co., Ltd., confectionery manufacturers, and has been planned as the centre portion of future extensions on each side.

The ground floor is for the loading of lorries, this fact ruling the positions of the stanchions to allow movement. This floor projects 10 feet from the face of the upper storeys to meet local by-laws, the projection having a steel and glass roof.

The staircase, lifts and lavatory block are all placed adjacent and in connection with Messrs. Barratt's existing buildings, serving both the old and new. Diespeker's patent "Big-span" floors, finished in teak boarding, are used.

The main elevation is treated in grey stocks, with blue brick sills, etc., ground floor projection being in concrete and black cemented.

The building is steel-framed with brick casings to elevations. Mr. George Eyles acted as Clerk of Works. The quantity surveyor was Mr. George Silvester, F.S.I.

Messrs. James Carmichael, Ltd., of Wandsworth, S.W., were the general contractors.

Henry Hope, Ltd., supplied the casements and top lights. The asphalte work was by Messrs. Ragusa, and the constructional steel by Messrs. Redpath Brown, Ltd. Messrs. Yannedis & Co. supplied the door furniture; the Lion Foundry the fire escapes; Messrs. Mather & Platt the sprinkler system; and the Dreadnought Door Co. the iron doors. The electric light fittings, wiring and heating were by the Resident Engineer of Messrs. Barratt & Co. Two lifts have been installed by the Express Lift Co.

PROPOSED CHURCH OF ST. ALBAN, GOLDERS GREEN. E. G. Trobridge, Architect.

The purpose of the plan of this church is to obviate the defect common to most parish churches—viz., more than 40 per cent. of sittings have a compromised view of the services owing to the nave columns.

The plan here illustrated gives great internal height with low external walls and naves of moderate width, and a further saving is effected by the lower third of the spire being an internal and fully occupied portion of the structure.

The choir, being central and slightly raised, is in a position much desired by organists.

It is proposed to build the walls of 2-inch sandfaced bricks. The columns, tracery, etc., is to be formed with fretted roofing tiles in layers. This method enables quite elaborate mouldings to be effected without the defective appearance of terra-cotta, at a much less cost than stone.

The roof to be tiled with red sandfaced tiles, and the spire roofed with oak shingles.

Notes and Comments.

Architects and Electrical Engineers.

A good article upon this subject appears in the "Gas Journal," which discusses the proposals made by the Institution of Electrical Engineers for a scheme of intimate co-operation between architects and electrical engineers. We quite agree with our contemporary that such co-operation between architects and electrical engineers as representing heating and lighting would be wholly improper and misleading because architects acting in their clients' interest should not identify themselves with one out of many methods of lighting and heating. Were a committee appointed by the Royal Institute on which gas and electric light engineers had representation, together with engineers connected with other methods of heating, and if such a committee could investigate and make an impartial examination and report, it would be quite another matter and the proposal would at the least be well worth serious consideration. As far as general heating is concerned we are afraid electricity is out of the running in this country under present circumstances, excepting in cases where cost is not a paramount consideration, and the question of the current used more or less immaterial. We are continually being promised cheap electricity by enthusiasts; but so far it remains an expensive means of heating and is not in question for any other purpose than lighting.

The Housing Problem.

Newspapers are filled with letters and articles from writers who all suggest some nostrum or other to solve the urgent question of housing. Mr. Worthington Evans suggests that the Budget surplus should be applied to financing Housing, but we should say it is fairly obvious that as a measure of justice this sum which has been extracted from the income-tax payer should be returned to him in the form of lower taxation in the immediate future. The Chancellor of the Exchequer, in a word, having made a miscalculation should adjust the error, for it cannot be assumed that the working classes have a right to a fixed proportion of the incomes of others! Other schemes suggest the printing of paper money to be used in the provision of housing, but on one point most of the varying suggestions agree, and that is they entirely overlook the central fact that people have a right to what they can pay for with their own efforts and to that only. It is the dissemination of the doctrines of diluted Socialism in every strata of society and its inclusion in Governmental action which renders the position an acute one. If we could once throw overboard the sloppy and ill-judged sentimentalism of the age we should rapidly regain our position, but till we do so there is little hope of making real progress.

True Perspective.

Under the above title "The Times" gives a description of a method which has been invented by Mr. J. W. Gordon for converting aerial photographs into means of accurately determining the dimensions of any object so that by the application of a scale a true plan and elevation can be produced from a photograph. It says:—

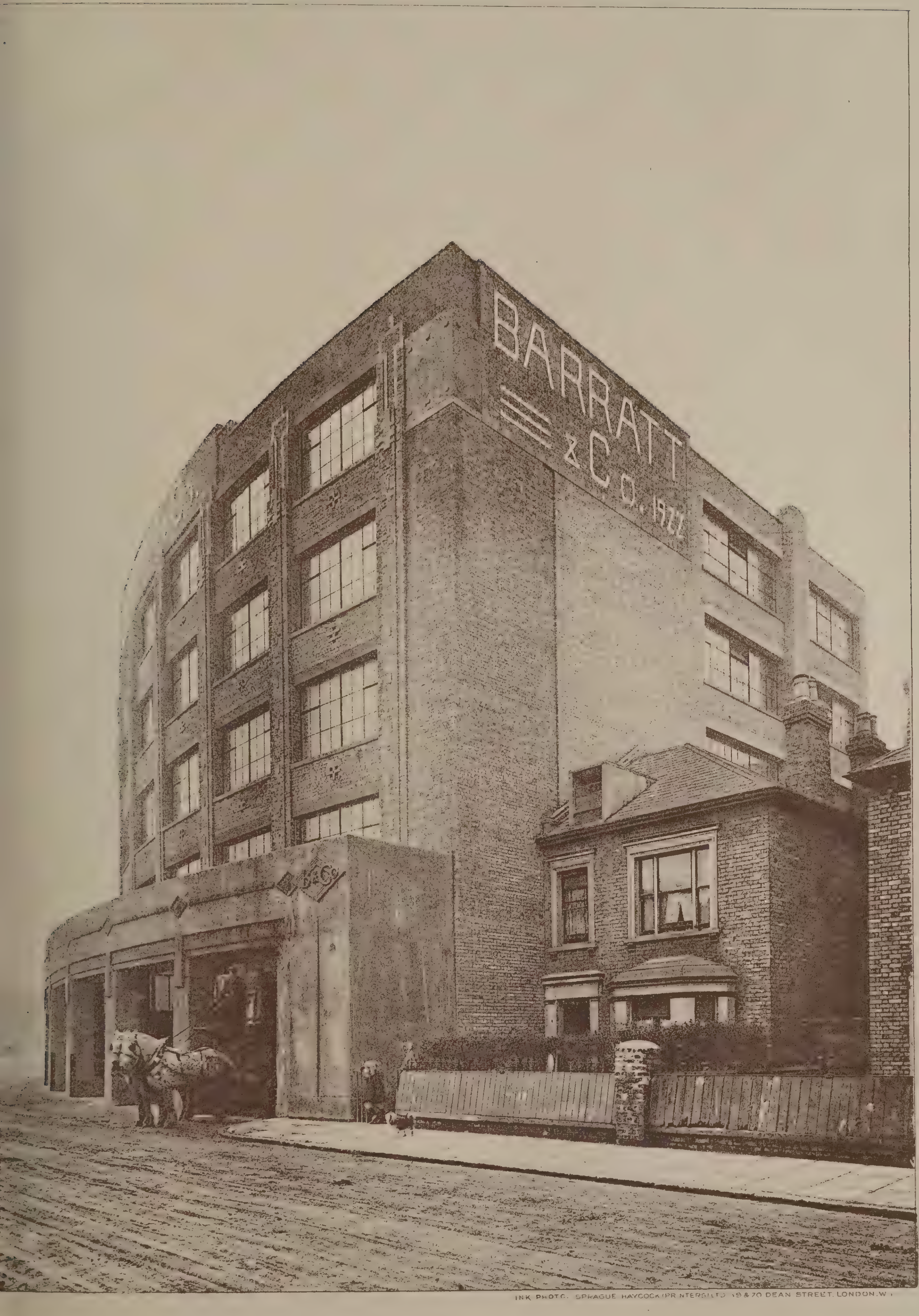
"A demonstration was given within the last few days at the British Museum by Mr. J. W. Gordon, author of 'Generalized Linear Perspective' (Constable and Co.), a work describing a newly worked out system by which photographs can be made available for the purpose of exactly recording the dimensions of the objects photographed even when the objects themselves are presented foreshortened in the photograph.

"Everybody is aware that the laws of perspective enable an artist to depict with due regard to appearances a view in which a mile of roadway appears compressed into a space no greater than is occupied in the same picture by the wall of a cottage standing by the wayside, and to do so with such mathematical correctness that a visitor to his studio can made a shrewd guess as to the length of the road. If the visitor be sufficiently instructed in the rules of perspective, he will be able actually to measure up that foreshortened road, given certain data from which the artist has worked."

The new method may and should be of great use to architects if it can be applied easily and without elaborate and expensive appliances. Those who know the labour and difficulties attending the measuring and plotting of complicated buildings will welcome any means by which their task can be shortened or partially eliminated.

The R.I.B.A. Housing Memorandum.

We entirely endorse Mr. William Woodward's protest on the subject of the Housing Memorandum issued by the Institute. We regard, as Mr. Woodward does, the proposals made as being trivial, mischievous and calculated to lead to



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NEW FACTORY, WOOD GREEN,, LONDON.

P. J. WESTWOOD & EMBERTON, ARCHITECTS.

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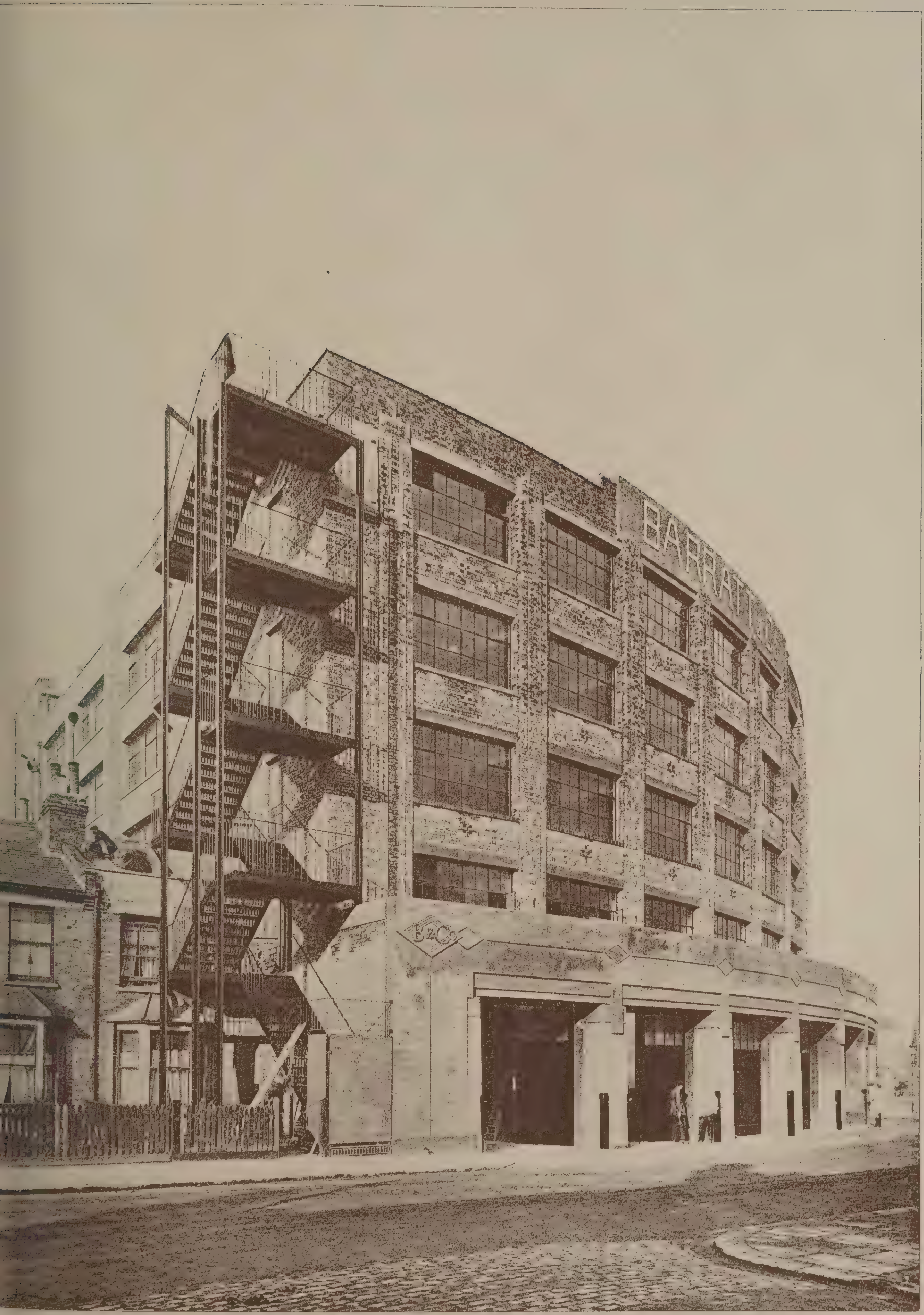

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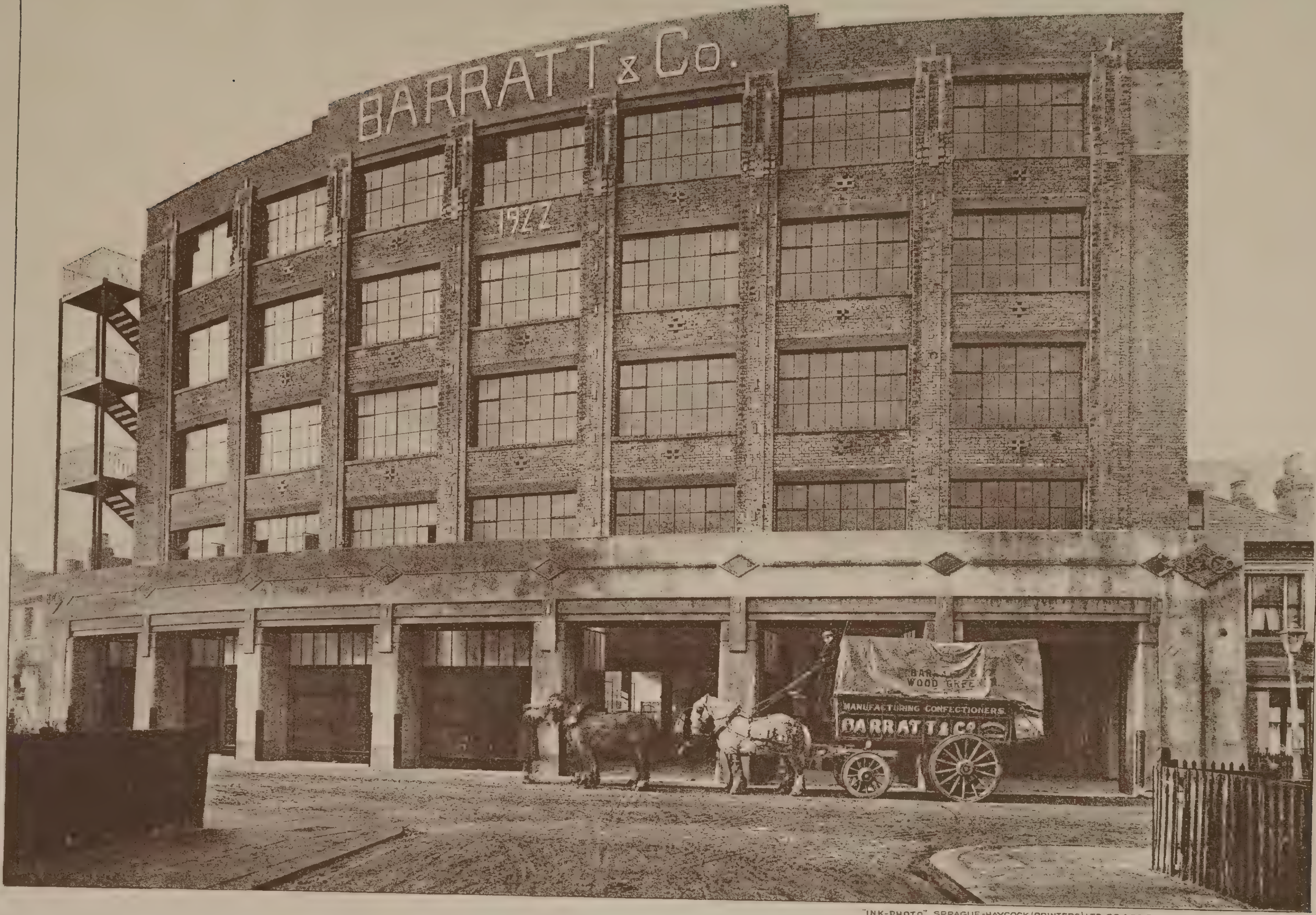

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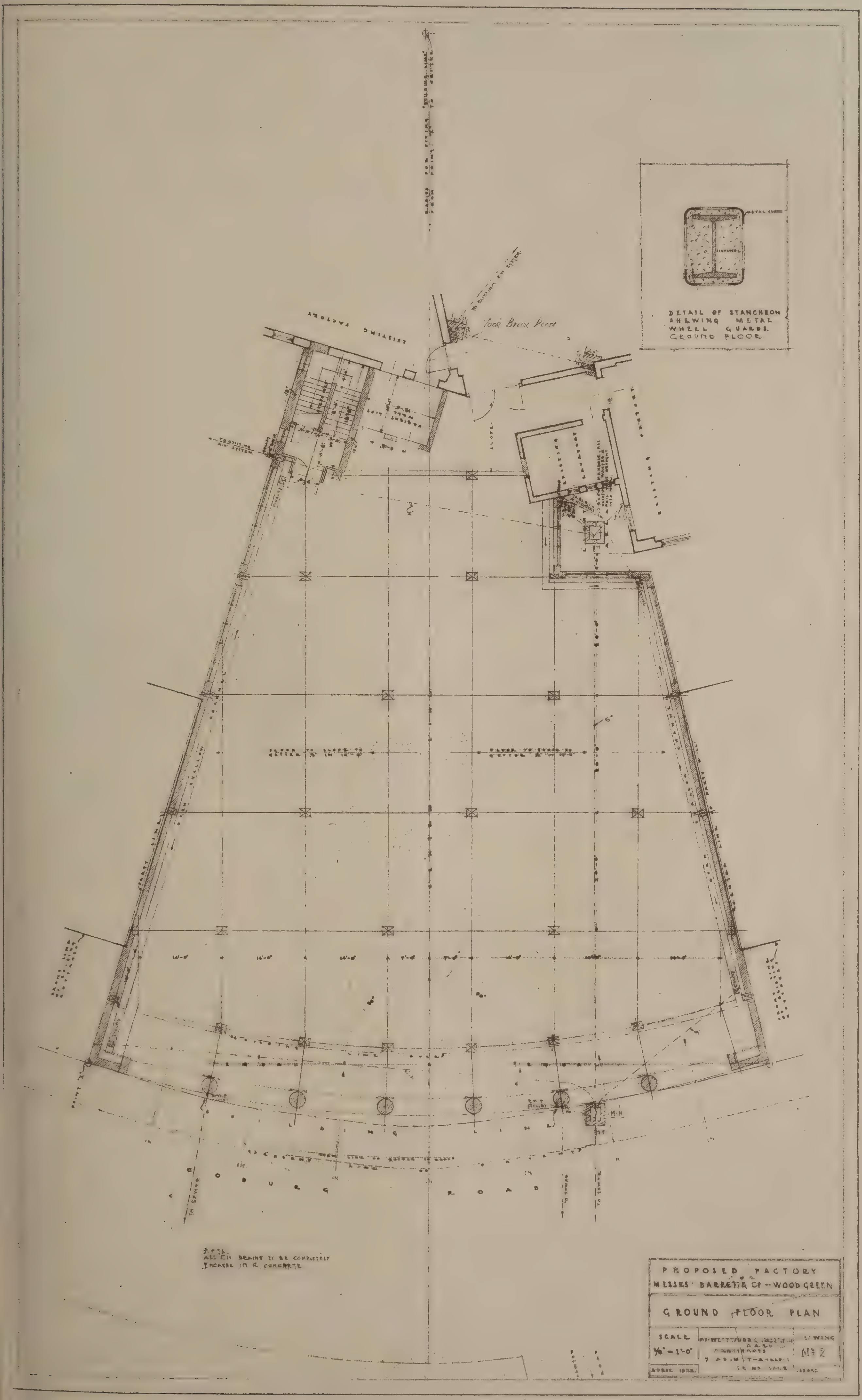

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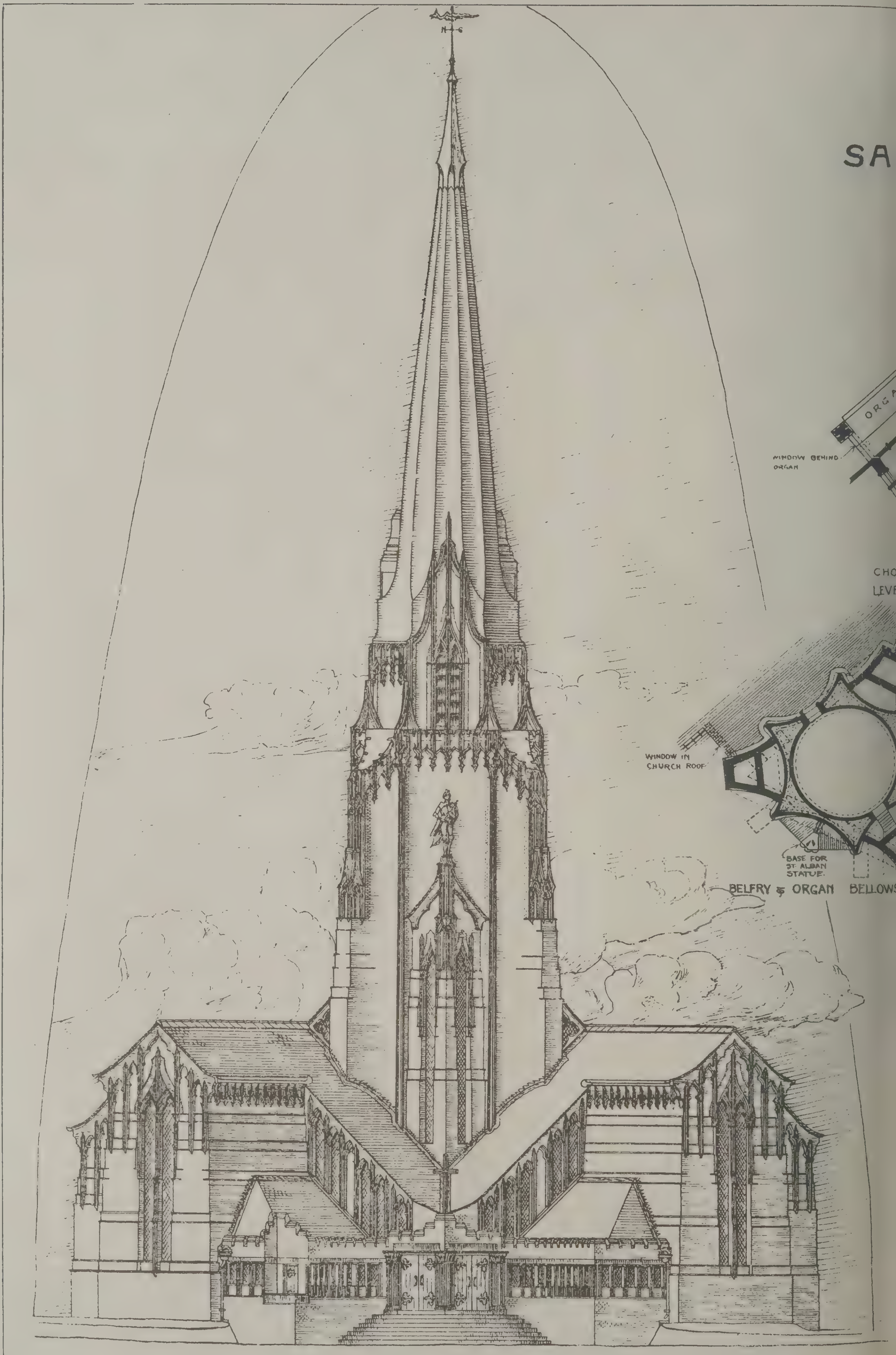


WEST ELEVATION.

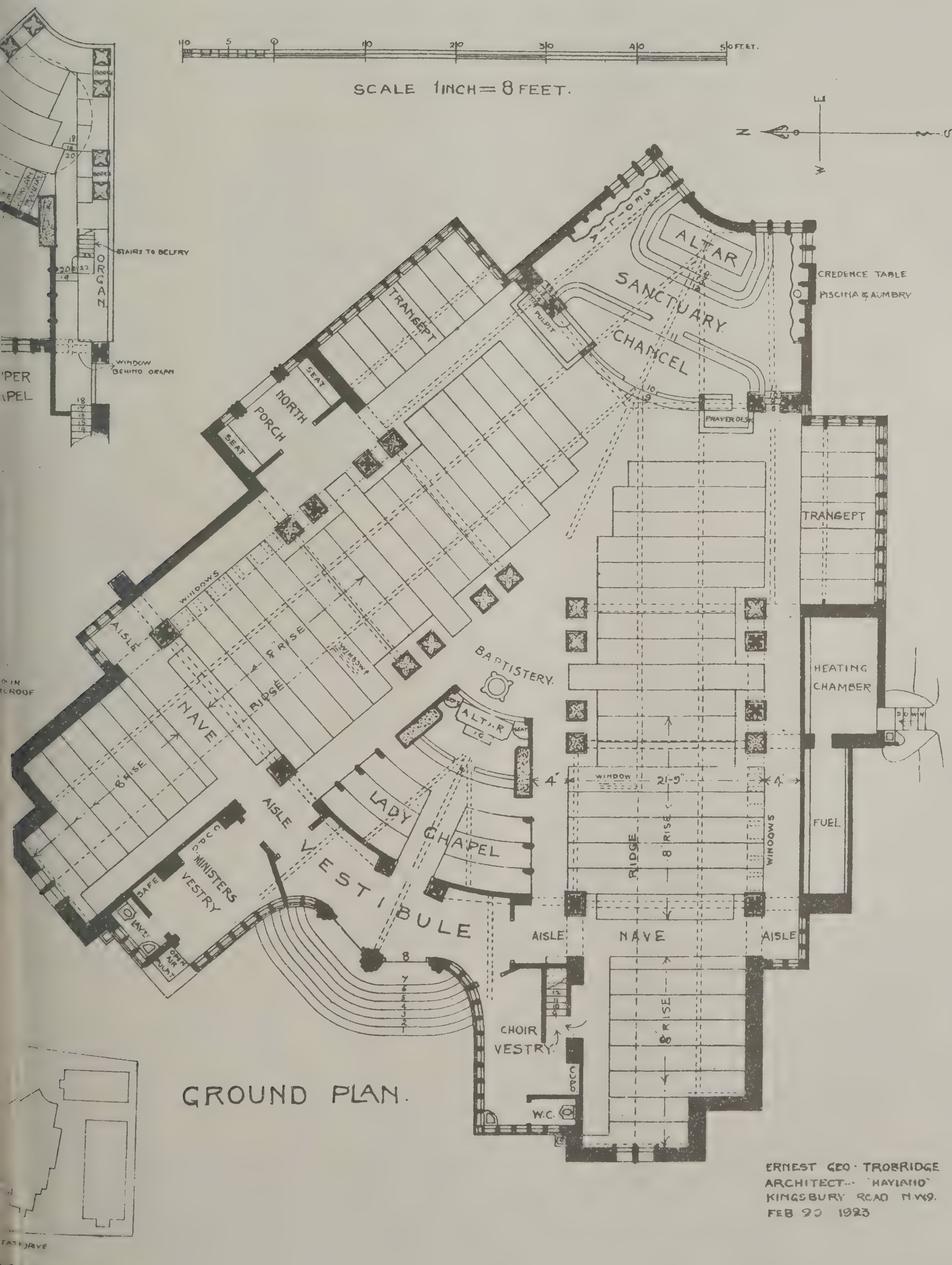
ST. ALBAN'S CHU

ERNEST GE

DRAWING No. 14.

ALBANS CHURCH. GOLDERS GREEN. N.W.

PROPOSED NEW CHURCH



GROUND PLAN.

OCI PLAN.

ERNEST GEO · TROBRIDGE
ARCHITECT... "HAYLAND"
KINGSBURY ROAD N.W.9.
FEB 20 1923

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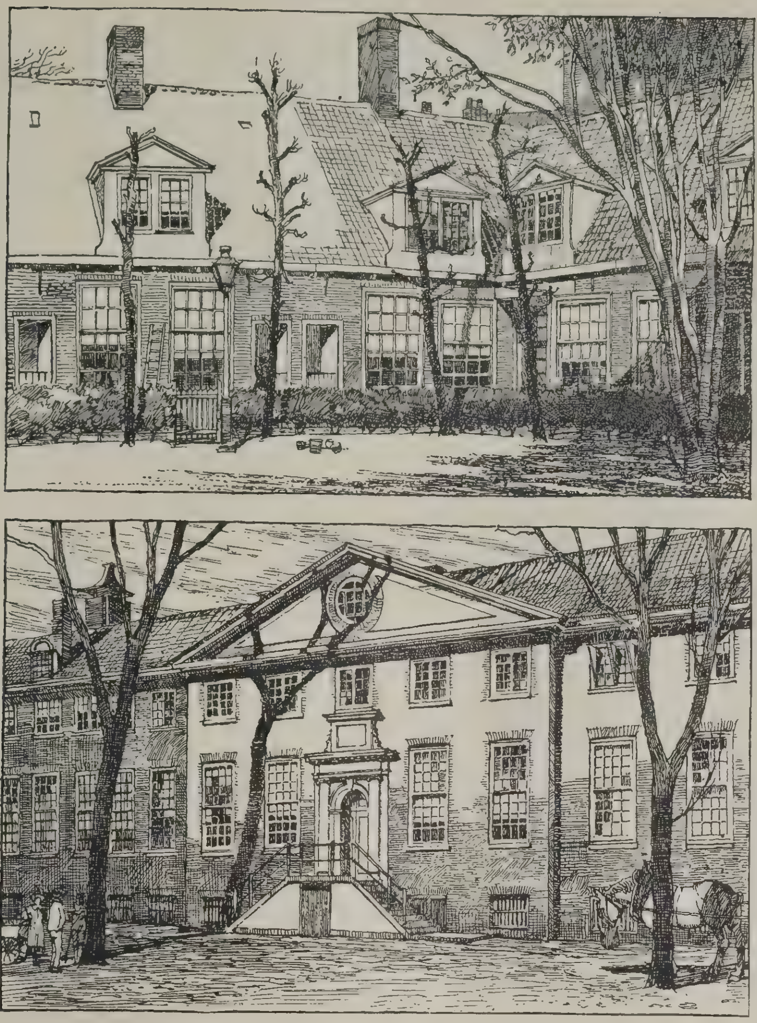


OLD HOLLAND. By G. G. Wornum.

an extension of that bureaucracy which, as architects and citizens, we have suffered from in late years. It does not represent the considered opinion of the Institute as a body and it is lowering to its dignity and position that such a one-sided and incomplete production should be issued in its name. "We have often thought it singular," to quote Mr. Gilbert, that the Institute where we hear so much of architects' claims to public recognition should never in the past 13 or 14 years have formulated a considered policy with regard to housing in conjunction with other bodies representing real estate interests. It has, to use a phrase, been fiddling while Rome is burning, giving the public every reason to believe it is indifferent to any but the more immediate and selfish interests of its members. Such a policy or want of a policy will not help it in the public eyes or induce that public to give its members the increased rights and facilities which they desire. It is, in fact, only to be likened to the traditional attitude of the ostrich, which is said to bury its head in the sand to escape from danger. Its epitaph might be: it had opportunities which it failed to use, and spent its energies in erecting monuments out of sand.

An Act of Vandalism.

We very much regret the decision of the Polish Government to demolish the Orthodox Cathedral at Warsaw because it commemorates the Russian domination of that country. We should suppose that Poland, though overwhelmingly Catholic, yet contains among its numbers a small proportion of Greek Catholics; and if so the destruction of the Cathedral is an outrage. If not, and assuming that no Pole belongs to the Greek communion, the building should be devoted to other uses. It is a good building of characteristic Russian Byzantine type and there seems no reason why the Poles should not follow the examples of the Turks who, in the fifteenth century, converted Sta. Sophia into a mosque. The war brought in its wake too much destruction of buildings and it seems almost inconceivable that a nation in the moment of victory should perpetrate such an action of barbarism. The Poles might stop to consider that the Bolshevist Government of the Russia of to-day is infinitely more to be condemned than the Government of the Czars with all its evils, and that the Greek Church of to-day is in Russia more bitterly persecuted than Poland was in the worst days of Russian rule.

An Appeal to the Building Trade.

In the columns of "The Times" Mr. Paul Waterhouse makes an appeal for peace to both builders and operatives which we heartily endorse. He proposes that the questions between them should be remitted to the Institute for arbitration. It would be a good step forward if both sides could agree to such a suggestion, and frankly the subject of dispute as defined is so small that neither side could risk very much by such a procedure. On the other hand, the facts are known to both parties and this must be apparent to both sides, and so if a strike does occur we may take it that it will be because the will to disagree exists on one or on both sides of the controversy. One prediction we have heard is that a strike will occur and at the end of a comparatively brief time the men will concede the masters' terms and go back to work, but that in such an event they will reduce output, which will render building more expensive than it is at present. If such is the case not only the building industry will be heavy losers, but the general public will be penalised, and all because a spirit of stupid ill-feeling prevails.

Paris has decided to spend 7,000,000,000 francs on municipal improvements. Amongst the items on which the money will be spent are subway extensions, workmen's dwellings, repairing streets and improving public gardens, new lighting, waterworks, and repairs on the City Hall.

Royal Institute of British Architects.

An ordinary general meeting was held on Monday, the 9th inst. Mr. Paul Waterhouse, President, was in the chair.

The Hon. Secretary announced the death of Harry Thomas Sandy, elected Fellow 1920; Harry Ramsay Taylor, elected Fellow 1906; George William Webb, elected Associate 1879, Fellow 1890.

Mr. H. M. Fletcher then read a paper, of which we give an abstract, on the subject of

The Architecture of Provincial France.

France is a very large country, larger than anyone would suppose who has not tried to travel there. An architect can hardly go wrong in France. Wherever he goes there is architecture.

The grand distinction is between North and South, cloud and sunshine. Of all civilisations that of France, bequeathed by Rome and shaped and stamped by Richelieu and Napoleon, is the most homogeneous. Indeed, the most striking characteristic of France, urban and rural alike, is its Frenchness. Other civilisations beat against France again and again without reducing one jot of that quality. Paris is not France. Paris is Paris—and yet even there lies the Ile St. Louis, an almost typical small provincial town of the humbler sort.

Architecturally the influence of this great civilisation on our own has been very small. Even in the Middle Ages it was exercised rather in lesser things than in greater, rather in detail than in spirit. It is found in the forms of arch and vault, in the use of flying buttresses and clustered piers—not much even in more intimate details such as mouldings, capitals and carvings. Contrasts are more striking than similarities. In France the chevet; in England the square east end; in France height and verticality; in England length and horizontal lines. Even more fundamental is the contrast between the Frenchman's love and the Englishman's disregard of logical perfection. Perhaps that difference is the reason why ever since the Middle Ages we have reached out beyond France to Italy for fresh inspiration. The Italians are not worried by the French passion for completeness; and their genius, in spite of its leaning towards the grandiose, is in some of its aspects akin to our own—irregular, casual, and haphazard.

The picturesque is a much less integral part of French architecture than it is of our own, and more emphatically of German. It is rarely sought for its own sake, but occurs rather as a by-product arising out of accidents of site or conveniences of construction, not as a native element of design. French towns, however, are far from being devoid of picturesqueness; but it is produced by conditions not controlling them. The exception is Brittany, where the mystical Celtic genius revels in exaggerations; those bulging and bickering gables, bargeboards, bressumers and dormers are heady stuff, attractive specially to inexperience, but they soon cloy.

The moderation of emphasis in ordinary buildings has much to do with the harmony of French towns. Their ease of bearing, their well-bred democracy, is made more natural by the smoothness of the transition in France, and especially in her vernacular architecture, from mediæval to Renaissance and on into the seventeenth and eighteenth centuries. Leaving aside the great scholarly buildings, the change is largely one of detail. The essentials change almost imperceptibly, if at all—the pitch of roofs, the proportion of roof to wall, the height of buildings, the spacing and size of window and door openings, the prevalent silver-grey colouring. We have not the same continuity of tradition: in our villages the change from the half-timber houses of the Middle Ages to the houses of William III. and Anne is far more violent. The same absence of over-emphasis is to be observed in the *tours de force* both of structure and design which the French can accomplish almost unawares with the easy grace of a perfect fencer, so that you have to be in the know to detect the difficulties they have mastered.

All Gaul, said the lecturer, was divided, not, as Cæsar commented, into three, but into two very distinct parts—north and south. In the region with which he was dealing he took Limoges as the point of division. On the hither side the architecture has the familiar features of Northern France: steep-pitched roofs with many dormers and covered with slates or more seldom with plain tiles, windows designed to catch the light, much timber framing, streets paved with cobbles and washed or swept to a reasonable cleanliness. On the farther side, flat-pitched roofs covered with half-round tiles, and because of their pitch almost devoid of dormers, shadowy eaves, windows fewer and smaller, streets paved sparsely and abounding in heaps of ancient refuse. The scale of building, which in the main depends upon the height of storeys, increases as the traveller goes south. The scale in France is noticeably greater than in England, though even in the South it does not attain Italian majesty. Roughly speaking, in ordinary domestic work here the height of storeys is from 8 to 10 feet; in France it is 12 and in Italy 15. In the greater churches the North surpasses the English scale in height, the South in width. The North expresses the aspiration of the Church, the South her all-embracingness.

It is commonly thought by the inexperienced that colour becomes richer as one leaves England and goes south. This is surely not true in France. The colour both of landscape and towns is lighter and fainter. Only at evening or in wet weather are the heavy greens and rich purples of the English misty landscape to be seen. The colour of France finds its truest interpretation in Corot, of England in Constable. Even in the brick towns, where the colour-chord is fuller, their tones are paler than with us. On the whole, if the colour scheme of French towns is less rich, less variegated than ours, it has a rare and exquisite delicacy; too austere to be effeminate, restrained within a sort of smiling harmony.

Commercialism, in the sense in which we Anglo-Saxons know it, has touched provincial France very lightly, if at all. The people care more about civilisation than luxury—*i.e.*, about clean rivers, smokeless air, conversation, well-tilled fields, the art of acting, crusty bread, non-chemical laundering, and buildings that are not smothered under posters and bloated gilt autographs. France and England have each their own characteristics, their own beauties, and at present their own uglinesses. But from of old the two countries have had to face many of the same architectural problems, and it is surely a point of wisdom in tackling a problem to consider how your neighbour has dealt with it. Whether you adopt his method or not, you have at least increased your armoury. Direct cribbing was tried in the days of the Gothic Revival; it did not do. The genius of the two countries is too different. Nor do the occasional importations of Beaux-Arts design look altogether happy in English surroundings. We may learn much from the study of French buildings of all ages, but our erudition should manifest itself subtly, rather by indirect reference than by quotation.

The second half of the lecture was an exposition of a set of exceptionally charming views of little-known French towns and buildings with which Mr. Fletcher was personally acquainted and which illustrated the points he had previously made.

Discussion.

Mr. E. P. Warren, in proposing a vote of thanks, said he did not remember any paper within the walls of the Institute which was more delightful or more refreshing. For the last thirty years there had never been a twelve months in which he himself had failed to spend at least a few days in France. It was impossible to go wrong there. There could be no more delightful holiday than to go from small town to small town with a sketch book. In the north, south, east or west there can always be found good architecture among the pleasant people and pleasant colours. Never was anything carried to a higher pitch of perfection than early French Gothic. Their masons attempted tremendous feats. His own opinion was that their civilisation affected us enormously from 1066—the time of the Norman Conquest. England, being a poor country, was able to build only on a small scale. Our Early English was really French in origin. Despite all its changes, France remained an intensely conservative country. England, on the other hand, had been made over and over again.

Mr. Fernand Billerey spoke of the feeling of confusion inspired by the paper, but caused by misgivings as to the little he knew of his own country. But to most French people it would be a revelation. It was pleasant to hear so much in praise of French work.

Mr. Cart de Lafontaine, Mr. Arthur Davis and Mr. W. H. Ward having also briefly contributed to the discussion, the vote of thanks was put to the meeting by the President and carried with acclamation.

Mr. Fletcher having made a brief acknowledgment, the meeting terminated.

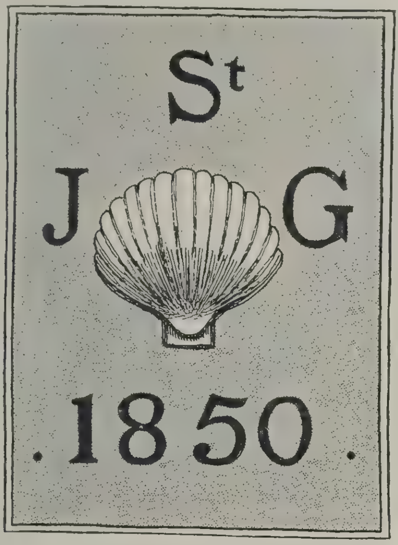
The London General Omnibus Co. are proposing to erect a 'bus garage on a site at Bushey Road, Sutton, large enough to hold 100 'buses, with a recreation room for the men over, at a cost of £20,000.

Mr. W. Reynolds-Stephens has been re-elected president, and Mr. F. W. Pomeroy, R.A., vice-president and treasurer of the Royal Society of British Sculptors. The Duchess of Rutland, Lord Crawford, Lord Leverhulme, Sir Aston Webb, P.R.A., and Sir David Murray, P.R.I., have become vice-patrons.

London City Parishes.—II.

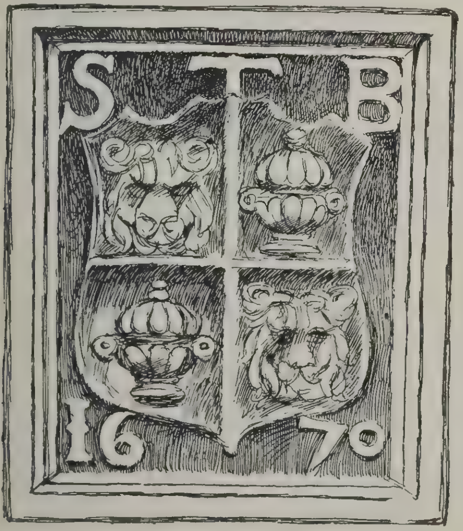
By Charles G. Harper.

The City retailers—the shopkeepers—in due course ceased to live over their shops, and followed the merchants into the country or the suburbs; and thus the sleeping population of the City by degrees dwindled to one merely of housekeepers and caretakers, and thus, automatically, the congregations of the City churches faded away.



ST. JAMES, GARLICKHITHE.

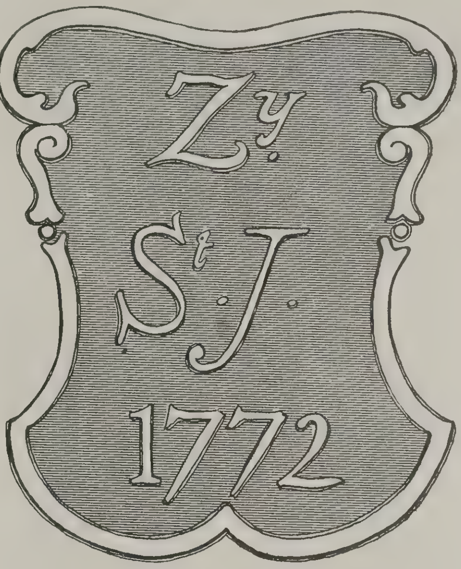
The church of St. Benet Fink, which stood where there is now an open space behind the Royal Exchange, partly occupied by the Peabody statue, followed St. Bartholomew's, closely adjoining it. St. Benet, Gracechurch Street, was taken down in 1867, to give place to shops and offices; in 1868 went St. Mary Somerset, of which the beautiful many-pinnacled tower alone remains, in Upper Thames Street. St. Mildred-in-the-Poultry was demolished in 1872, and St. Martin Outwich 1874; St. Mildred's stood where the lofty Gresham Assurance Company's offices are now. It was at once the smallest and the most sumptuously appointed of Wren's City churches. St. Martin Outwich stood in the miscalled "Broad" Street, where was also St. Peter-le-Poor,



COMBINED PARISH MARK OF ST. BRIDE'S AND COMPANY MARK OF THE GOLDSMITHS.

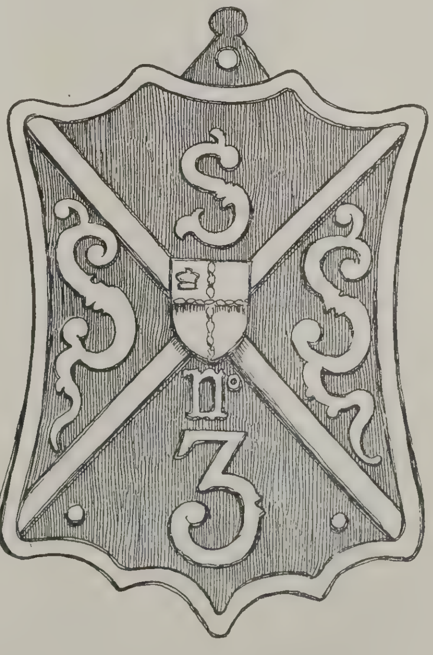
aken down in 1896. In 1874 disappeared the very fine hurch, with lofty stone steeple, of St. Antholin, Budge ow. St. Antholin parish had already been ecclesiastic-lly united with St. John-the-Baptist-upon-Walbrook; and hose two were then further united with St. Mary Alder-ary, whose tall tower, opposite the Mansion House Station, is a curious and not unsuccessful effort by Wren to design a church in the Gothic style.

The bones of the old parishioners of St. Antholin were then removed (as since have been those from many another City church), and the proceeds of the sale of St. Antholin's site were devoted to the building of an entirely new church at Norwood, rather than the rebuilding of Wren's church with the old stones. A hideous monument, telling the story of these doings, and bearing a representation in relief of St. Antholin's, was set up on a meagre selvedge of ground in Budge Row saved from the site; and there it remains to-day, an accusing witness.



ST. JOHN ZACHARY.

The year 1876 was notable for the demolition of St. Dionis Backchurch, Fenchurch Street (whose old oak now panels a dining-room in Bedford Park, Turnham Green), and St. Michael Queenhithe. This last was a particularly fine outstanding example of Wren's design. In 1878 All Hallows, Bread Street, was laid low. Shops and offices



ST. SAVIOUR, SOUTHWARK.

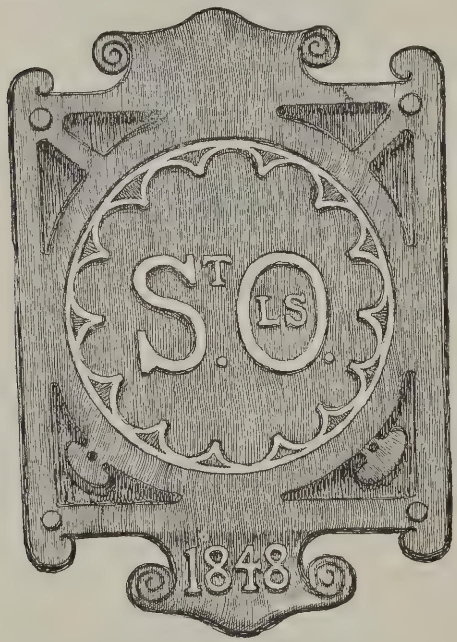
stand there now, one of them bearing a tablet recording that Milton was baptized in the older church on this site. The demolished church had on its tower a curious inscription which has been transferred to that of St. Mary-le-Bow, Cheapside, where it may yet be read.

These lines, by Dryden, are to be seen on the west side of the tower, in the courtyard known as "Bow Churchyard," although it bears to-day not the remotest resemblance to anything of that nature. It may be doubted whether the critical appreciation of Milton is to-day as high as this of Dryden's :—

"Three Poets in three distant ages born,
Greece, Italy, and England did adorn ;
The First in Loftiness of Thought surpast,
The Next in Majesty—in both the Last ;
The force of Nature could no further go :
To make a Third she joined the former Two.

JOHN MILTON
WAS BORN IN BREAD STREET ON FRIDAY THE 9TH
DAY OF DECEMBER 1608, AND WAS BAPTISED
IN THE PARISH CHURCH OF ALL HALLOWS
BREAD STREET ON TUESDAY THE 20TH
DAY OF DECEMBER 1608.

"This tablet was placed on the Church of All Hallows Bread Street
Early in the 19th century, as a Memorial of the Event
therein recorded, and was removed in the year 1876—when that
Church was pulled down, and the Parish united for Ecclesiastical
Purposes with the Parish of St. Mary-le-Bow."



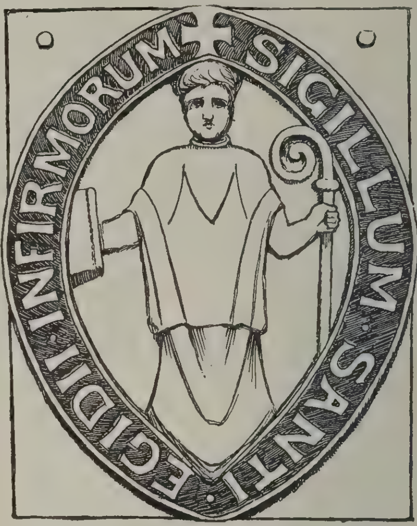
ST. OLAVE'S, SOUTHWARK.

In 1884 was taken down St. Matthew, Friday Street. St. Olave, Jewry, went in 1887. It was not taken down, but was remodelled as offices, and can yet be seen in that condition, with the ship weathervane of St. Mildred-in-the-Poultry on its tower.

All Hallows, Upper Thames Street, was removed in 1890, to make room for an enlargement of the City of London Brewery. In 1890 St. Michael, Wood Street, was abolished. Some of the exterior walls were used for the offices then built ; and the bracket clock remains. Then went the neighbouring church of St. Michael Bassishaw. Just before Christmas, 1886, the church of St. Mary Magdalene, Old Fish Street Hill and Knightrider Street, was burned out. The opportunity was taken of not rebuilding it, but of using the site for commercial buildings, and of uniting the benefice with that of St. Martin, Ludgate.

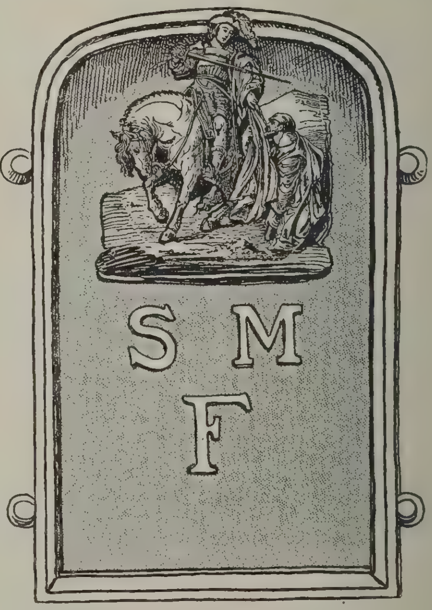
Twenty-one City churches have in all disappeared since 1670, leaving 53 ; and 19 more were in 1920 scheduled for removal in the recommendations of the Committee appointed to consider the question of the City's population and spiritual needs. The seating accommodation of the existing churches is 20,000, and the sleeping population of the City was in 1896 stated to be 25,000.

As already noted, many of the existing churches represent several parishes. The church of St. Margaret, Lothbury, is united with those of six others : St. Mildred-in-the-Poultry ; St. Olave, Jewry ; St. Bartholomew-by-the-Exchange ; St. Christopher-le-Stocks ; and two others which were burnt in the Great Fire and not rebuilt—St. Mary Colechurch and St. Martin Pomeroy. Bow Church, in Cheapside, represents five others : All Hallows, Bread Street, and four burnt in the Great Fire and not rebuilt—All Hallows, Honey Lane ; St. John the Evangelist, Bread Street ; St. Pancras, Soper Lane ; and St. Peter-at-the-Cross-in-Cheap.



ST. GILES-IN-THE-FIELDS.

Still, at intervals, the ancient ceremony of "Beating the Bounds" may be observed in the City and its "Liberties," as elsewhere in this country. It takes place on Ascension Day, or "Holy Thursday" ; and has done so since the Reformation, before which it was performed somewhat earlier—on one of the Rogation Days, Monday to Wednesday. The former religious character of the celebration was then qualified, in consonance with the new spirit of the age, as expressly enjoined in Queen Elizabeth's Prayer Book. Therein the people are desired "once a year, at the time accustomed," to perambulate the several parishes "with the curate and substantial men of the parish." "At their return to church" they were to "make their common prayers," and Psalm CIV. was ordered to be said, the minister expressly to emphasise the sentence



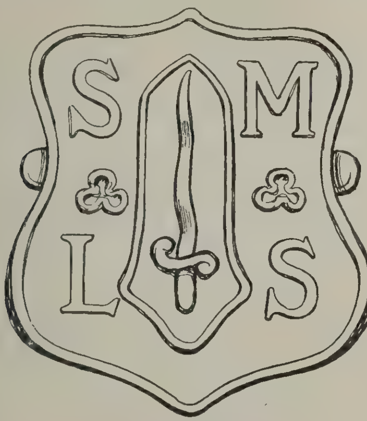
ST. MARTIN-IN-THE-FIELDS.

"Cursed be he which translateth the bounds and dales of his neighbour."

Neither these religious observances nor the rough horseplay once common to these occasions will now be found accompanying the ceremony of "Beating the Bounds." Formerly it was the custom to impress the local charity boys for these perambulations, and to bump one or other of them severely against a boundary wall or duck him in a pond, if such happened to be available, so that he should have excellent cause to remember all the circumstances and the exact spot. This was held to be the most likely method of securing exact testimony as to boundaries in case of future disputes. Nothing was permitted to stand in the way of those who beat the bounds; and it is told how a peer's carriage was on one of these occasions standing in a London street, across such a boundary line, while the owner was paying a visit. The churchwardens accompanying the party desired the coachman to move out of the way, but he refused; whereupon the carriage-door was opened, and the whole procession, headed by beadle and churchwardens, passed through.

"Beating the Bounds" is an exceptionally picturesque ceremony in the Tower Liberty, for there the Yeoman Warder of the Tower of London, in State dress and carrying the wand of office headed with its silver model of the White Tower, leads the procession of schoolboys, each armed with a peeled willow-wand. Arrived at certain boundaries of the Liberty, they are instructed to thrash the walls of buildings there; a complete change from those not very remote times when the boys, and not the walls, would have had a taste of the wands, "for remembrance," as Ophelia might say.

The City parish marks, and those immediately outside the City, are not there without necessity. The perambulators of the boundaries would not find their business so easy without them. The dated tablets range from the close of the seventeenth century up to (in the case of the parish of St. James, Garlickhithe) 1850. A curious combination of parish mark and property mark is a stone sculptured tablet on a house in St. Bride's, Fleet Street, dated 1670, and bearing the initials "S.T.B." and a shield of the Goldsmiths' Company. A tablet of "St. Faith-under-St. Paul's" reminds those who are versed in City of London topography that in the crypt of old St. Paul's was the parish church of that name; while against the exterior west wall of the Cathedral, at the southern angle, was the Church of St. Gregory, a parish now united with St. Martin, Ludgate. St. John Zachary parish still has its parish marks, although there has been no church since the seventeenth century and the parish is ecclesiastically united with St. Agnes and St. Anne-in-the-Willows, Gresham Street, adjoining St. Lawrence Jewry, whose mark bears the gridiron badge of St. Lawrence.



ST. MARY-LE-STRAND.

South of the City, and west, the parish marks of St. Saviour's and St. Olave's, Southwark, and St. Mary-le-Strand and St. Martin-in-the-Fields are occasionally found; while in Sheffield Street, St. Giles's, is an unusually ornate mark displaying that saint.

The Albion Iron Company, Ltd. v. Edwin J. Sadgrove, Architect.

This was a claim for the balance of an account for goods sold and delivered to defendant for his own house at Chertsey. The actual figures of the items in the claim were not in dispute, but defendant counterclaimed and set-off for damages for breach of contract, alleging negligence, faulty goods, and unreasonable delay, which caused him heavy loss.

The case was heard in the City of London Court on the 23rd ult., when plaintiff's counsel successfully argued a point of law that the defendant had in law suffered no damage as the acceptance of the goods—in effect—forgave the plaintiff for any wrong he may have done in connection therewith, the defendant should have refused delivery of the goods, and the defendant's claim for damage for the delay was too remote since although he might have suffered damage, the measure of damages recoverable under the Sale of Goods Act is the difference in market price in the absence of special agreement, and it followed in consequence that defendant's counterclaim must also fail.

The evidence therefore was not called upon and judgment was given for plaintiff both on the claim and counterclaim.

The White Lead Controversy.

The question whether white lead can be replaced by leadless paints has at last been settled in a manner which should give general satisfaction. The position of the problem in this country is, briefly, that in 1911 the Home Secretary appointed two Committees to investigate the matter in regard to the health of painters using white lead paint for the painting of buildings and for coach painting. These committees, which reported in 1915 and 1920, advised that it was not practicable adequately to safeguard the health of the painter by regulations, and, further, that substitutes existed which could satisfactorily replace white lead for all purposes, and therefore recommended the prohibition of the use of white lead for paint materials. The evidence as to the existence of satisfactory substitutes was largely based on evidence tendered by the Office of Works.

During the war, no attempt was made to give legislative effect to the recommendations of these committees, and in 1921, owing to the serious failures of these substitutes, which had been observed by the Office of Works, the Home Secretary appointed a new committee to re-examine the matter. This committee, which has now reported, carefully considered the results obtained by the Office of Works, and in addition the evidence which had accumulated throughout the country in other quarters. Specific instances are given in an Appendix of the failure of leadless paints on Buckingham Palace and Government buildings and of the effective protection afforded by lead paints even after twenty-five years' exposure.

From a general review of the evidence, the committee states that it "cannot support the recommendation that the use of lead paint for the painting of buildings be entirely prohibited. Further, we are satisfied that for outside painting and for certain kinds of internal painting, there is at present no efficient substitute for lead paint."

The committee state that "the view that lead poisoning among painters is almost entirely caused by dust is now generally admitted" and that by far the greater amount of dust is due to "dry sandpapering of either old or new paint work, and in a less degree the chipping or scraping of old paint." Both master and operative painters are agreed that it is now practicable to substitute a dustless process, the use of a waterproof sandpaper, the manufacture of which has recently been successfully undertaken in this country.

The committee recommend that legislation should be passed to give effect to regulations drawn up by the Painters Joint Industrial Council in conjunction with the Home Office, including the prohibition of dry rubbing down.

The report also recommends the adoption of the proposal of the International Labour Conference 1921 that the use of lead paints should be prohibited (after 1927) for internal painting, but points out that this would involve increased cost of painting and that the exemptions provided for cases such as railway stations and industrial establishments (where special conditions of exposure make lead paints indispensable) should be extended. It also suggests that a Commission should be set up to institute paint tests.

Adwick-le-Street Urban District Council has decided to go forward with a comprehensive sewage disposal scheme to meet a population of 22,000. The increase has been made necessary owing to the extensions of the Brodsworth, Bullcroft and Bentley collieries and of the proposals of these companies to erect between them nearly 1,000 houses.

The Housing Tragedy.

By E. G. Trobridge, Architect.

An event of importance is about to happen. The local authorities have been asked to reconsider their by-laws. At once the question arises why should the regulations be changed? At present they appear, at first glance, to be intelligent. Further, can it be said that during the present period of relaxation of regulations any new construction has been designed which shows any distinct merit, financial or otherwise, although encouraged by ample subsidies? Honestly I do not think so. Some revivals of ancient constructions have been of great interest, but they have not shown any substantial economy over the standard construction, and the latter only is acceptable to financial controllers of the majority of small houses—viz., the mortgagees. Under these circumstances it would appear in these times, when we suffer from endless futile changes, but another irritation to make new by-laws. There are, however, further facts which I feel sure will indicate that the domestic building regulations of this country constitute by far the greatest evil of our times, an enemy who has wrought greater havoc even than the Germans, and is still steadily depriving the uncapitalised class of its homes and health and creating a nightmare of miserable slums.

The subject is here divided into three sections: Structures, Drainage and Roads. In this preliminary article only the first will be dealt with.

Before examining the product of the existing regulations let us examine a good construction which they condemn, say, the hardwood framed house.

Foundations: piers of brick, stone, concrete or oak, built one foot above ground, so that the air passed freely between same.

Floors: sapling oak joists, sawn on one face and floored with stout sawn elm. The walls with oak studs plastered over on one side and plastered between on the other according to which side it is desired to exhibit the framing.

The chimneys of brick and the roof of unthreshed reeded wheat straw thatch, dipped in lime as laid, the external surface washed free of lime.

The windows to be iron or oak, the doors ledged and braced oak or elm.

The qualities of such a house are as follows: With a very low maintenance cost it lasts almost a thousand years, and is beautiful; it is, on an average, about 6 degrees warmer in winter and like degrees cooler in summer than brick and slate. It is practically free from vermin. Lime-dipped thatch is not attacked by birds or other vermin, and is probably the most fire-resisting house roofing available. The hardwood framed house, being only about one-fifth the weight of 9 inch brickwork, easily permits oversailing constructions. These projections are a great protection to the lower walls.

No precaution against rainwater is required. Only distemper is required for decoration and oil for doors. No paint is required except on iron window frames. The externals of walls can be varied with tile, slate, oak shingle, elm weatherboard or vertical thatching.

This construction last because it is quite dry; thus there is no dryrot and obviously it is good for health, because pulmonic and rheumatic troubles, which are among the greatest curses, are undoubtedly attributable to damp housing.

The defects are the expense of making ground floor warm, and the difficulty in some parts of obtaining oak. (Elm, if sap free and protected externally, will last for 300 years.) Buildings somewhat of this type can be seen in good condition in Holborn (built 1572); around York Minster, dating prior to the Minster; in fact, most of the oldest cottages in this country are of this type, except as to foundations.

Now let us consider the product of the Building Act, and the origin of the tragedy is at once obvious, and that they can never solve the house shortage because the life of such structures is just about the life of a man—viz., 60 years. Under the late Housing Scheme the deferred payment was nothing but a sinking fund: when paid for the house had ceased to be, and this is the origin of the whole tragedy. Last century has only handed us over rapidly decaying slums, and our present programme is but an insane follow-on of an unsound policy.

Why do the 9 inch houses decay so quickly? Because they are damp. After about 40 years dryrot is usually well established in the ground floor. The plaster of the south and south-west walls has decayed. The zinc work is perished and not renewed. The R.W. pipes are frost cracked, rust decayed and leaking on walls. The constant call for repairs has driven the decent landlord to sell and the new one is distinguished principally by his ability to refuse all applications for repairs. After twenty years of this neglect the house is sold for any figure or deserted, and then the slum is upon us. It is past repair, so it exists at the expense of the health of the tenant, and then our hospitals re-echo ultimately our disastrous housing regulations.

Another view of the case arises if we ask the following questions: What advantages have we obtained by increasing the weight of a cottage by 400 per cent. by using moisture-absorbing materials instead of dry, soft wood instead of hard, paint instead of oil, cold roofing instead of warm, increasing the cost, reducing the life to about one-tenth of what may be reasonably expected, ugliness instead of beauty? All these results are the direct following of modern regulations. Indeed the latter may proudly boast to have discovered the quickest and most expensive method of producing a slum.

There is still another view. There are many districts (some quite close to London) which have no structural regulations, yet they do not indicate any particularly bad results.

To sum up the position. If the houses of last century had been built in materials which do not absorb moisture there would be no house shortage to-day. The latter will never be cured by houses which do not outlast their sinking fund.

Let the Government give a subsidy to houses which will last 300 years, and our housing regulations would have to be scrapped. They are not justified from any point of view; they have not even reduced the fire risk.

(*To be continued.*)

"The Architect" Fifty Years Ago.

April 12, 1873.

Portsmouth.

The improvements which the Government and the local authorities have in progress here are of a very extensive nature. Not only is the greater part of the Mill Dam being filled up, which once contained several acres of water, but several roads are projected or in course of formation, with military lines of communication, from the extreme points of the town. A tramway is being constructed to extend ultimately from Portsdown Hill Forts to the Watermen's Point at Portsmouth, which will in length be about six miles. The Railway Joint Extension scheme, which will be shortly commenced, is to run from the terminal station of the London, Brighton and South-Coast and the London and South-Western Railways, cross the People's Park, cut through the Governmental gunwharf, and terminate at a landing-stage to be constructed, 300 feet long and 30 feet wide, a branch line running off into H.M.'s dockyard for the conveyance of troops, stores, etc., for embarkation. Such improvements cannot fail to be of an immense benefit to the town, and will considerably convenience the services, facilitate general communication and improve the trade. Speculation is rife as to whether the basin, which will contain about five acres of water, and will be left between the new railway and the gunwharf wall, will be used for commercial purposes, as ultimately, it is argued, Government may dispense altogether with the gunwharf, and be inclined to let or sell it for a line of commercial docks reaching from Portsmouth to Portsea. There is no doubt that the whole of the remaining gates and ramparts will be levelled, and thus a wide area of land will be thrown open. Some of this will be the site of cavalry barracks as at present laid down upon the War Office plans, but it will be some time before these plans are carried into execution.

The Wolverhampton Corporation are considering a scheme for the erection of a large number of houses under their own financial responsibility. The Corporation on Monday last agreed to accept the tender of Mr. A. M. Griffiths, of Wolverhampton, amounting to £20,724 for 68 houses on the Parkfield Road Estate. Twenty-four will be of the "A" type at £319 each, and 44 of the "C" type at £297 each.

Modern Methods in Building Construction.—XLI.

By Albert Lakeman, M.S.A., M.C.I.

ROOF WORK.

Modern developments in roofing work have been principally on the lines of devising covering materials for concrete flats and the introduction of light and cheap coverings for pitched roofs to supersede the use of ordinary slates and tiles. Some of these have proved reasonable in cost and satisfactory in use, while others can only be described as cheap in the first instance without any other merit to justify their use. Roof construction and coverings generally have been greatly influenced in character by the developments that have taken place in modern work as regards the other portions of the structure, because the old-fashioned methods and materials are not in keeping with a steel frame or reinforced concrete building.

In the olden days the roof was rightly treated as an important feature in the appearance of the building, both externally and internally, but to-day it is often subservient to the remainder of the work and is looked upon merely as a "lid" to keep out the rain. Generally speaking, timber roof trusses are obsolete for large buildings and the king post, queen post, hammer beam, and other types are known to the student of building work and can be seen in the older structures, but are practically unknown to the average craftsman. The trusses in modern work are usually of steel in large buildings where a pitched roof is employed, and timber is practically confined to domestic buildings where rafters, purlins and collars are used in a simple manner with support from walls and partitions at points which obviate the necessity for definite framed trusses. During the war there was an increase in the use of timber-built trusses due to the need of numerous temporary buildings which had to be erected speedily, but the type adopted was not the old-fashioned heavy-framed type, but of a light form such as the Belfast truss or any similar kind of principal which could be made up on the site with spiked connections, without the need of special shop work of a finished character. This class of structure called for rough carpentry only, which was executed in many cases by semi-skilled or unskilled workers only, and the trusses and roof work generally carried out at this time cannot be considered as an ordinary development of modern construction, but rather as a form of emergency work which has had little influence on the roofs being constructed to-day. The type of truss generally selected does, however, indicate to some extent the tendency that would soon be apparent if timber had retained its position as the universal material for roof construction on buildings not erected for domestic use. The substitution of steel for timber has followed naturally because the latter material imposed severe limitations on the span and in addition long lengths of sound timber of large section are usually difficult to obtain and are expensive, thus causing a long span truss to become a special feature that was to be avoided when the initial cost was a serious consideration. The limitations of the timber caused designers to introduce steel tie rods and other steel members in order to make a long span at a reasonable cost practicable, and from this stage it was but a natural step to introduce the all-steel truss of the modern type. Reinforced concrete has been used for pitched roofs, and trusses of this material, both pre-cast and *in situ,* were made in large numbers during the war; but, generally speaking, the all-steel truss is preferable on account of its lightness compared with its strength, the speed and ease with which it can be erected, and its suitability for almost all classes of structure. Reinforced concrete trusses of arched form can be satisfactorily introduced in some buildings when the framework is of this material, but it is an exceptional case that shows an advantage for reinforced concrete over steel for the ordinary pitched roof. Reinforced concrete is obviously the material for a flat roof, and the best results will always be obtained from a material which is developed with some regard to its limitations and not dressed up to follow the lines that can be naturally attained by some other material. The three materials that can be applied to roof construction can therefore be given as (1) timber, (2) steel, (3) reinforced concrete, and of these the first-mentioned is the most suitable for domestic roofs and small spans, the second is excellent for long spans, industrial buildings and large structures where a pitched roof is required, and the third is applicable to flat roofs, especially where the framework is of reinforced concrete.

The question of roof covering or finishing offers a comparatively wide scope for the architect, and he may select one of many materials, according to the class of work being dealt with or the effect it is desired to obtain. The materials on the market to-day include slates, tiles, asbestos, felt, corrugated iron, concrete, asphalt, glass, boarding, lead, copper, zinc, stone and thatch, and there should be no difficulty in dealing with any structure from a tool shed to a cathedral with such a range to select from, although many of the materials will be quite unsuitable for general work and should be limited in their application to the class of structure for which they are obviously intended. Some of the factors to be considered in the selection of a roof covering are lightness, fire-resistance, permanence, appearance, initial cost, resistance to traffic by workmen and speed of execution. All these factors will not need to be considered in some classes of structure, but they should be borne in mind for general work.

Ordinary slates have been extensively used for many years, and they can be considered as a good, reliable and standard covering which can be applied to almost any class of building. They do not give the picturesque effect obtained by clay tiles, and for this reason are not so successful when applied to domestic buildings, although often adopted on account of the fact that they are cheaper and are lighter. Care should be exercised to select a good slate which will not break up under changeable weather conditions, and the size of slate should also be considered in relation to the size of the roof to be covered. A good hand-made sand-faced clay tile has a distinct advantage for domestic work, as it will tone down and improve with age, and in addition it is of a very durable character. A cheap pressed machine-made clay tile will not usually give a pleasing appearance to the roof, and, furthermore, this class is liable to shell off and become disintegrated after a few years' exposure, and the old-fashioned tiles are generally superior to those produced by modern methods of manufacture unless the latter are utilised to turn out tiles which have all the characteristics of the older types. Special descriptions are not needed in connection with tiles and slates as they are materials which have been in use for so many years that all readers will be conversant with the methods of fixing and points to be considered.

Concrete tiles are a distinct modern development, and although they have not been extensively used in place of clay tiles, there is some possibility of their adoption for work on an extended scale during the coming years. These tiles can be obtained in different colours, but there is a distinct tendency to monotony which will constitute a serious drawback in structures where a pleasing appearance is desired. They are manufactured by moulding and pressing a fine concrete mixture in a concrete tile-making machine, and almost any desired shape can be made by a variation of the moulds. Where suitable aggregate is available and no clay tiles or slates are obtainable in the locality, it will be economical to manufacture these concrete tiles, especially in connection with a large scheme where the initial outlay required for the plant will be recovered before the whole of the tiles are made. A great advantage of these tiles is that they can be made of an interlocking type, which will withstand the fiercest gales without being dislodged, and for that reason they are very suitable for exposed positions. These tiles are not generally known and have not been advertised in the market sufficiently to develop much usage, and experience is therefore somewhat limited, and the advantages and disadvantages have not been realised.

The need for a light and cheap roof covering led to the development of asbestos cement tiles and sheets, and these are a typical example of a modern material. Asbestos cement tiles can be obtained in small sizes generally laid diagonally or as large moulded tiles which are laid with a single lap. The former are light and cheap on first cost, but they are monotonous in appearance and in many instances are not durable. To give a satisfactory job they must be laid on boarding which has been covered with a layer of felt, and this, of course, adds considerably to the total cost of the roofing. A great disadvantage of these tiles is that they are often of inferior quality material, which is so thin that exposure to frost and varying weather conditions causes cracks which gradually develop until pieces become detached and eventually the whole tile is destroyed. For this reason the author does not consider they are reliable for work of a permanent nature, and ordinary tiles or slates are preferable. When used for factory work it will be found that even a small amount of traffic over the roofs—generally unavoidable for glass cleaning, repairs, and alterations—will crack and break up the tiles, necessitating constant repairs and expense. Some of the larger type of asbestos tiles will be found to give better results, as they are moulded to shape with stiffening ribs which materially strengthen the tile, and in addition a thicker material is used, which prevents the cracks from occurring as with the smaller type. These large tiles will obviously not be suitable for domestic work, but for large buildings and factories they possess some advantages, as they can be fixed direct to purlins without the introduction of common rafters or boarding, and they are light and comparatively inexpensive. A well-known type of tile which is made in large size is the "Trafford" tile, and this can be fixed direct to purlins, either of wood or steel, at 3 ft. 6 in. centres. The fixing is effected through the raised rib and is accomplished with a screw or hook bolt, according to the nature of the purlin. It is necessary to introduce an asbestos fibre washer under the head of the bolt and the latter must not be fixed down too tightly or there will be a tendency to depress the corrugation slightly and when expansion or contraction takes place cracks will be caused. When long lengths of roofing are covered with this material special shaped expansion tiles are introduced at intervals to permit of some movement taking place without defects occurring, and asbestos cement ridge tiles can also be obtained which fit over the corrugations and give a neat and watertight finish. These tiles will not withstand a great deal of traffic, but they will hold up under reasonable conditions and will be found more reliable than the thin small tiles above mentioned.

Asbestos cement corrugated sheets can also now be obtained, these being made similar in size to the ordinary corrugated iron sheets. They possess advantages over corrugated iron, however, in appearance and in durability, as the iron must be frequently painted or coated with a preservative to prevent rapid corrosion, more particularly in districts where smoke and acids are present in the atmosphere to any marked degree.

It is important to select these corrugated asbestos sheets with some care, as, owing to the method of manufacture, in some cases there is a tendency for the material to be thinner at the top and bottom of the corrugations than at the intermediate points, and cracks are likely to occur at these thin places. These sheets generally are very suitable as a covering for temporary buildings, as they are light, easily fixed, and the cost is reasonable.

The use of felt for permanent buildings will not generally be considered as a practical proposition by many architects unless they have kept well in touch with modern methods and have had some experience in the application of this material. There are on the market to-day several excellent kinds of bituminous felt which will last for many years if properly laid, and there are numerous roofs where the appearance does not need to be considered as it is not visible from any ordinary view point.

When the bays of roofing are filled in with pre-cast concrete slabs or beams, such as Siegwart beams, it is necessary to provide some layer of watertight material which constitutes a skin or covering to prevent absorption of rainwater and protect the joints, and bituminous felt will serve this purpose admirably as no great strength is necessary, and by the use of a mastic it can be stuck down directly on to the concrete without any screeding or preparation. Many roofs in America are formed by using planking 3 inches thick for the filling between the trusses, these planks having grooved and tongued joints and spanning a distance of about 10 feet. A waterproof covering is then applied in the form of two layers of felt over one layer of special waterproofed paper, the whole being stuck down with a mastic and having a good lap at the joints. To protect the felt from injury during the hot weather and from traffic by workmen the whole surface is then coated with a mastic applied with a brush, and about 2 inches thickness of ¼-inch slag is put on. This type of roofing has proved so satisfactory that firms who supply and lay the felt are willing to give a guarantee for a long term of years and maintain the work free of cost during such term. For industrial buildings concrete and felt or boarding and felt will be found to have many advantages, as it can be easily applied, easily repaired, is reasonable in cost, and with proper care will last many years, while there is probably no other material which can be applied so quickly, provided always that the panel filling is executed in dry weather and the felt covering is proceeded with immediately. Many efforts have been made in modern work to construct flat roofs with concrete that is sufficiently watertight to avoid the necessity of an additional covering material, but the difficulty in such cases does not lie with the density of the concrete itself, but with the cracks that are practically bound to occur if the area is at all large. Definite joints can be made in the work to allow for expansion and contraction and the movement will then be concentrated on certain defined lines, but there is still a difficulty in making these joints watertight, even when a plastic material is used, and a risk will always be present unless the concrete is covered with asphalt, felt, or some other suitable layer. Asphalt generally is an excellent material for flat roofs, but it is comparatively expensive, and for this reason its use is restricted. The remaining materials do not require much comment as their use is very limited, with the exception of glass, which is applied for top lighting in many buildings. When glass is used it is advisable to adopt one of the many excellent forms of patent glazing which are on the market, as they will give a watertight roof, allow broken glass to be repaired with the minimum trouble, and provision for dealing with condensation will be made. Lead was extensively used in bygone days as a covering for flat roofs, and the majority of text books still devote a lot of space to the description of this class of work, but owing to the high cost of this material and the introduction of substitutes of a satisfactory nature, its application in modern work is generally confined to flashings only.

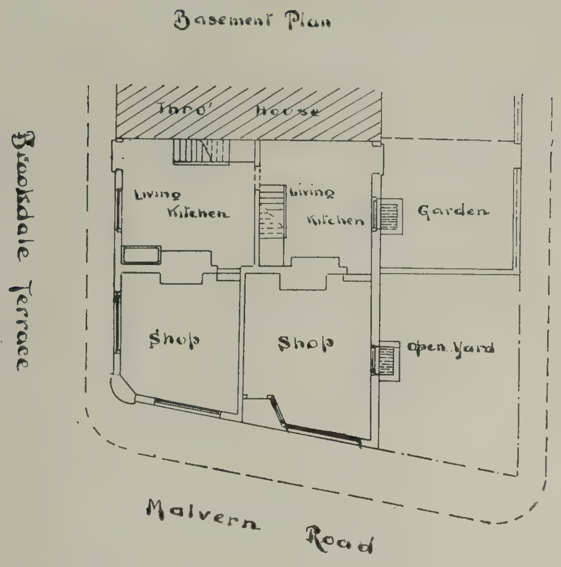
In dealing with roof work, care must be exercised in the application of the materials if the best results are to be obtained, because the weathertightness and lasting qualities will be affected by the pitch of the roof. The minimum pitch for an ordinary tile roof will not prove satisfactory for a material like asphalt, which would commence to creep down directly it was subject to warm weather. In the case of large asbestos cement tiles the pitch should never be less than 19 degrees, and in slates a pitch of 30 degrees is the least that should be used, while with felt and similar materials a slight fall only is required. Other points that need to be considered include the question of flashings, provision for expansion, the lodgement of snow, the warping of timber, and items of this character—which may seriously influence the permanence if sufficient attention is not devoted to them.

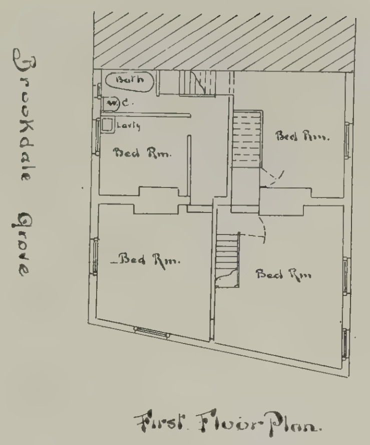
(To be continued.)

Mr. G. Alan Fortescue, A.R.I.B.A., architect, has removed to 13, George Street, Hanover Square, W. His telephone is now Mayfair 2326.

Newcastle Corporation Housing Committee have recommended the City Council to accept the tender of Messrs. H. M. Nowell, of Stockton, amounting to £102,020, for the erection of 384 block dwellings, of two, three and four rooms, at Rochester Street, Walker.

Correspondence.





Bye-Laws.

To the Editor of The Architect.

Sir,—The intended conversion of one shop with living accommodation and one lock-up shop into two shops with living accommodation (as shown on the above plan) has been rejected by our Improvements Committee as being contrary to Section 43 of the Town Planning Act, 1909, which bans the erection of back-to-back houses. In this case each tenement will have a shop door and a house door each fronting to different streets. The opinion of some of your professional readers will be interesting as to whether this conversion will constitute "back-to-backs." I always understood the objection to that class of house was want of a through draught; in this case there need be no shortage of that.—Yours, etc.,

Leeds Architect.

The Architectural Assistants' Minimum Salary.

To the Editor of The Architect.

Sir,—Further to your comments in The Architect of the 30th ult. on the above subject, the following points are worthy of further consideration:—

1. The rates mentioned in the "Journal of the Architects' and Surveyors' Assistants' Professional Union" are not fixed rates and were never intended to become such. They are on quite a different plane from the fixed charges as laid down by the Royal Institute of British Architects and which would, had the Union so desired, have formed an excellent precedent for similar action on its part so far as the salaries of assistants are concerned. It would seem necessary before condemning fixed rates to examine carefully how far such condemnation applies to the scale referred to. In arriving at its minima the Union has recognised that in all cases within the profession varying degrees of workmanship, ability, and responsibility are always found. But it is convinced that these merits will not receive their due recognition until the salaries of those on the lowest rung are stabilised on an economic basis. On to this may then be added whatsoever the man's capabilities are worth, but in no case should a man's salary fall below a living wage. It is for this purpose that the figures of £5 11s. per week for a man of 26 years of age and £3 8s. per week for the man of 19 years of age were fixed. (Cost of living 80 per cent. above the pre-war level.)

2. Whilst it is agreed that in many practitioners' offices "occasional windfalls" characterise the manner in which a portion of the work comes in, it by no means follows that the salaries paid the staff vary in proportion. There must be few, if any, offices where this principle is adopted. So far as assistants are concerned, were such a proposal forthcoming, suggesting as it does of partnership in the firm, with the responsibility of introducing work, working harder, and at the end of the day receiving a fair share of the spoils, it would meet with whole-hearted approval, and encouragement. In any case "the labourer is worthy of his hire" and neither method affords a sufficient reason for the paying of a man less than a living wage.

3. The suggestion that the assistant would be more likely to improve his position as a "free lance" is one likely to provoke much controversy. But, whatever the solution, the fact remains that within the profession there are very large numbers of men employed in the permanent position of assistant and the tendency seems to be for the number to increase rather than diminish. That being the case, these men as employees have the common right to expect that their employers shall pay them at least a living wage. They are in the ranks of the profession, and the members of this Union believe that for the good name of the profession the suspicion that salaries are being paid below a decent subsistence level should receive the serious and immediate attention of all seeking the maintenance of that good name.

So far as deterring others from entering the profession is concerned, this has been rightly placed in the forefront of the Union's programme. But it should be pointed out that repeated attempts made to interest some of the older professional bodies in evolving a scheme to remedy overcrowding have not met with the success which the gravity of the situation would merit.

To point out how low is the status of the professional assistant, I would remark that in the course of last week this Union had to prove to a City Council that architectural assistants with years of experience were worth more than £4 16s. 2d. per week, and one of them performing the duties of an official architect.

The time is surely come for all connected with architecture to mend a state of affairs which may be termed nothing short of disgraceful.—Yours, etc.,

John Mitchell,
General Secretary.

Partitions and Sound Resistance.

To the Editor of The Architect.

Sir,—We have read with much interest Mr. Albert Lakeman's article in the March 30 number of The Architect, and the above subject being one of steadily growing interest, we are hoping Mr. Lakeman will be able to return to it in later articles. We feel sure we are expressing a very general feeling when we say that a more detailed treatment than was possible in Mr. Lakeman's last article would be welcomed.

Mr. Lakeman says: "To produce the necessary sound resistance it is essential to provide either a perfect void in the interior of the dividing partitions, or to construct the latter with sufficient deadening and sound-absorbing material to prevent the sound waves being conducted through the division." We presume Mr. Lakeman means by "perfect void" a vacuum and not merely an airspace. Whilst agreeing that there is a difference of degree in airspaces, it is our experience that even the best designed are far from good non-conductors of sound. In fact, it sometimes happens (though this is chiefly in floors) that an airspace simply aids in giving a drumlike effect, and it almost seems as if sound on one side is intensified on the other.

In partition work there are three goals to be aimed at, economy in cost, adequate sound resistance, and economy in space.

Generally speaking, it is of no use to attain perfection in any one of these objects if the other two are sacrificed. The desideratum is the best combination of all three. If a partition 10 feet high by 20 feet long of sufficient strength can be kept to a thickness of not more than 3½ inches or 4 inches, giving efficient sound deadening, at a reasonable cost, it will probably be agreed that excellent all-round results have been achieved.

We market a sound-deadening material, and as a consequence in the course of our business have been consulted with regard to sound deadening problems in connection with almost every conceivable type of work. Nine-inch brick walls, all types of wall board, plyboard, asbestos sheets, concrete slabs, coke breeze, are all liable to let too much sound through unless reinforced with special sound-absorbing material.

We hope Mr. Lakeman will give us his views.

Yours faithfully,
pp. Building Products, Ltd.,
James Chapman.

Columbia House,
44–46, King's Road, Sloane Square, S.W.

Builders' Supplies for Canada.

To the Editor of The Architect.

Sir,—The Officer-in-Charge of H.M. Senior Trade Commissioner's office in Canada reports that an important firm of building contractors are desirous of receiving from United Kingdom manufacturers periodical information as to current prices of the following :—Coarse pink plaster, Portland cement, structural steel, steel plates, bar iron, corrugated iron sheets, bricks.

It is stated that during the present year the company will be in the market for 50,000 barrels of cement, 15,000 tons of bar iron, 5,000 standard size corrugated iron sheets, and that they would be glad to receive quotations for these requirements at the earliest possible date. Quotations are required c.i.f. Montreal, and should specify the earliest date of shipping.

United Kingdom manufacturers interested in this inquiry may obtain the name and address of the Canadian firm referred to on application to this Department.—Yours, etc.,

G. W. Barker
(for the Comptroller-General).

Department of Overseas Trade,
35 Old Queen Street, S.W.1.

[Any communication respecting the above should be addressed to the Comptroller-General, quoting 10935/ED/GC (2).—Ed.]

The Visual Angle in Perspective.

To the Editor of The Architect.

Sir,—Having read that " nowadays the architects are the only people who can make perspective drawings," and believing that your journal leads in the old country amongst those papers that appeal particularly to the architectural profession, I venture to address to you this letter. My hope is that its appearance in your columns—if you can give it space—may elicit from amongst your architect readers some explanation of what seems to me a most peculiar feature of almost all works upon perspective.

This feature to which I refer, and which has considerably puzzled and amused me, is this, that there does not appear, in any perspective work with which I am acquainted, any really sound and geometrical method for determining one's " distance " in accordance with the visual angle.

I am not unaware of that supposedly geometrical method which puts down a plan, or elevation, of the object and locates " eye " on the P.V.R. line by finding where two lines enclosing between them the visual angle, and embracing within their spread the object in that plan or elevation, have their apex. An illustration of this method can be seen on p. 235 of the latest edition of Cassell's " New Popular Educator." This supposedly visual-angle solution, however, although it looks correct, is not by any means so. It starts wrong, and cannot and does not give a correct answer. In nearly every case it gives a " distance " too short for the angle it appears to use.

The test of any " visual-angle " method is, of course, that if one uses the minimum distance for that particular angle, the field of vision circle will just circumscribe the perspectively-drawn object. Applying this test to the method referred to, one almost always finds the resulting field too small, proving that the apparently correct process places " eye " too near.

The principle that the field should contain the object is given in most works on perspective. It is generally accompanied by the statement that the maximum angle, for comfortable and distinct vision—the emphasis is mine—is 60 degrees.

The peculiarity that has puzzled and amused me is this, that no writer appears to have applied the principle to the determination of the distance. I have wondered why. It seems to me that if the principle is sound—and I think it is—the statement of it should be followed up by showing how one can practically apply it. One should find it explained how to ascertain what size the field should be in order to contain the object when drawn ; for if one knows the size of the field, the distance corresponding to any angle is then easily found.

What all writers have, however, done is to merely state the principle—and then completely ignore it ! They invariably give the distance with mysterious frequency as 12 feet, but do not say how the distance is arrived at. Search and inquiry have failed to elicit the origin of this 12 feet, but I have hit upon what is probably the basis of it.

My interest in the question of the " visual-angle " distance arose out of a desire—perhaps only natural in a Scotsman—to have my V.P.'s, etc., as close together as I could legitimately have them, so as to secure all possible economy and accuracy in working. By legitimately, I mean just as close together as is compatible with the apparently accepted maximum angle of 60 degrees; for if 60 degrees is the maximum for distinct vision, it is obvious one should not go closer than that angle allows of.

Strength was added to my interest by my conviction that the distance should always, other things being equal, depend entirely upon the visual angle. Existing methods for determining the distance really ignore the visual angle, with the result that the former controls the latter, and that, until one has drawn the perspective, one cannot say definitely what angle of vision one really has employed ; a topsy-turvy system, surely !

I should perhaps say that, with the aid of an English mathematical friend, I have evolved a simple and reliable process which determines the distance really in accordance with the visual angle. The advantages are surprisingly practical, so much so that, upon the advice of a perspective enthusiast here, a little has been done towards the preparation of a book on the subject. But, as it seems inconceivable that during the four hundred odd years in the course of which men have been investigating and writing about perspective, this matter of geometrically determining the distance has not been as thoroughly systematised as is the finding of the various working points, the book has not been really seriously tackled. Doubtless some one of your readers know where the thing is done, although I have been unable to trace any treatment of it ; if so, perhaps he may be kind enough to inform me.

Thanking you in anticipation of your being able to give the matter space in your columns, and hoping that therefrom may result the shedding of some light on an apparently neglected aspect of a most fascinating and useful art,—I am, Yours in some perplexity,

John Henderson.

15, Grove Road, Hawthorn,
Melbourne, Australia.

[We do not understand our correspondent's difficulty. He could either use a plan or employ a sextant.—Ed.]

Forthcoming Events.

Friday, April 13.—The London Society. Meeting at 18, John Street, Adelphi. Paper by Mr. C. H. Bressey, entitled " London's New Trunk Roads in the Making." 5 p.m.

Institution of Heating and Ventilating Engineers. Smoking Concert at the Engineers' Club, Coventry Street, W.1. 7 p.m.

Saturday, April 14.—Edinburgh Architectural Association. Joint Visit with the Cockburn Association.

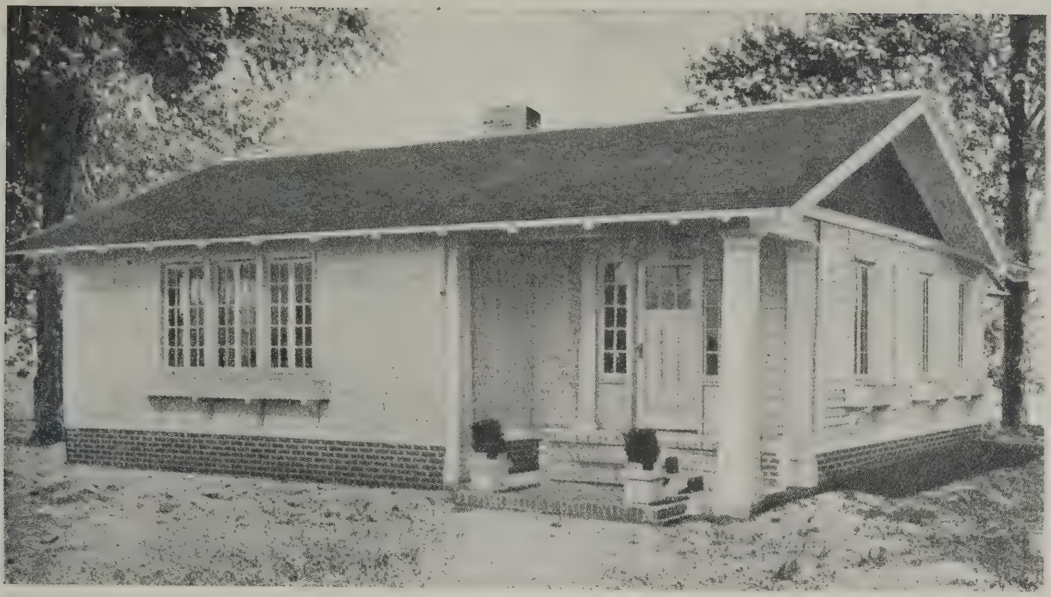
Saturday, April 21.—Royal Institute of British Architects. Visit to Messrs. Crittall's Metal Works.

London Society. Walk Round the Old Roman Wall of London.

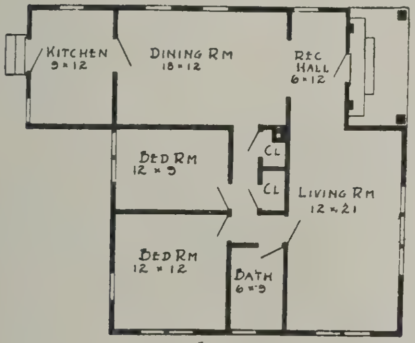
The Liverpool Housing Committee is contemplating action with the Burlington, Hopwood, Great Richmond and Rankin Street areas, the estimated cost of acquiring the lands and buildings, and laying out and constructing new roads and buildings being £135,000. Accommodation will have to be found for 2,376 persons who will be displaced.

The 34th Congress of the Royal Sanitary Institute will be held at Hull from July 30 to August 4, and will be presided over by the Right Hon. T. R. Ferens, P.C., J.P., High Steward of Hull. The Lord Mayor of Hull is the chairman of the Local Committee, who have in hand the arrangements for receiving and entertaining the delegates and members. The sectional meetings and conferences into which the Congress is divided, together with the officers of each, are given in the preliminary programme. Section B—Engineering and Architecture—will be presided over by Mr. W. C. Fenton, F.R.I.B.A., the Lord Mayor of Sheffield. A Health Exhibition, illustrating municipal sanitation and domestic health and comfort, will be arranged in connection with the meeting in the Wenlock Barracks, Anlaby Road. Nearly 200 authorities, including foreign and Dominion Governments, Government departments and local authorities, have up to the present appointed delegates to the meeting. During the meeting visits will be made to places of interest illustrative of the sanitary administration of Hull and district.

"Circle-A" Unit Buildings.



"CALIFORNIA" MODEL.



FLOOR PLAN

There undoubtedly exists a certain suspicion in this country against the exclusive use of timber for dwellings. Its champions, however, have been able to bring forward many convincing arguments to justify their faith, and have, as a result, made a great deal of headway. One of those arguments is the fact that in other countries timber is found to give perfect satisfaction and to escape the disadvantages which are taken for granted by opponents. For example, in Canada and the United States timber houses are to be met everywhere. That being the case, it behoves us over here to see if American experience can offer any help towards meeting our urgent housing shortage, which, like the poor, threatens to be always with us. It is from that standpoint that we wish to draw attention to the forthcoming entry of a new competitor—or rather, to a new addition to our limited alternatives—in our home market. The fact that it is of American parentage should be no reason for refusing it a courteous welcome or not bestowing a fair scrutiny as to its merits. Its striking record of quickly gained success elsewhere must whet one's curiosity.

Before giving any account of the system it may here be advisable to mention a few details as to the organisation behind t. The Alexander Lumber Co. is one of those vast concerns which are met with in most branches of industry in the United States, but which make English activity appear somewhat iliputian. The company own 250,000 acres of forest in the States, and 35,000 acres near Vancouver, purchased from the Canadian Government. The capacity of their mills is over 00,000 feet per day, and they have about ninety plants in various towns and cities.

"Circle-A" unit buildings are a natural development out of quarter of a century's experience. Their unique feature is hat they are factory-completed to the minutest detail—includ- ng painting, hardware, flooring, interior plaster walls and ceilings, ven to shingles on the roof, every single one of these operations eing carried out by the company; whose slogan is "From tump to Consumer." In the case of most sectional buildings eretofore the purchaser obtains the shell only, and has to manage as best he can for the rest. This involves considerable additional cost, and may easily end in impairing or even destroying the portable character of the structure. In "Circle-A" construction each section stands absolutely complete in itself. Each floor, wall, partition, ceiling and roof section is three feet wide, and buildings can be erected quickly of any size and to any plan in multiples of three feet in either width or length. The units being interchangeable, any subsequent rearrangement or enlargement can be made with ease. All sectional joints are interlocking, so that a very rigid and weathertight building is obtained. Four different types of internal wall construction are available; two different types of external walls, and two of the roof sections. The foundations can be of any permanent nature—in the States cedar posts are often employed with perfect satisfaction. All exposed woodwork and construction lumber is of selected No. 1 southern yellow pine or Californian red fir. Wall and ceiling sections are provided with reinforced plaster panels inserted into the frame at the factory. One remarkable characteristic is the ease with which the completed units are assembled together and transformed into a stormproof house by unskilled labour. All the tools required are a hammer, a wrench and a screwdriver. Each unit is sufficiently light to be handled and bolted to its neighbour by one person. Before leaving the factory any kind of colour can be given to the units—the standard tint is a mahogany brown inside and an exterior coat of one coat of white lead filler.

In the United States these "Circle-A" unit buildings may be seen as big towns as well as modest detached villas, churches as well as factories, garages as well as concert halls, school houses as well as hospitals. There seems to be no end of possibilities in this connection. These are to be developed in this country by Messrs. Bivert & Firth, 15 George Street, Hanover Square, W.1., who are making their arrangements in anticipation of a big demand.

Mr. Neville Chamberlain, Minister of Health, has given the following reply to a question on the cost to the State of the houses subsidised under the proposals of the late Government: "Of the 176,000 houses to which the local authorities and public utility societies scheme was limited, 157,235 had been completed on March 1, and 10,810 were in course of building. Tenders had been approved for 3,864 houses, but work had not commenced, and in the case of 4,091 houses tenders were either under consideration or had not been submitted for approval. The 39,164 houses built under the private builders' subsidy scheme were completed before August, 1922. The total cost to the Exchequer to date is £9,500,000 in capital subsidies to private builders, £10,700,000 in annual subsidies to local authorities and public utility societies. It is estimated that the annual charge on the Exchequer under the assisted scheme will amount to nearly £9,000,000 in the early years. It is hoped that a reduction will be secured on this charge in later years as loans are reborrowed at lower rates of interest."

Measurement of Daylight Illumination

By P. J. Waldram, F.S.I., and J. M. Waldram, B.Sc.

A joint discussion of the Illuminating Engineering Society, the Royal Institute of British Architects and the Surveyors' Institution was held at the Royal Society of Arts, 18, John Street, Adelphi, on March 27, to consider the subject of "Window Design and the Measurement and Predetermination of Daylight Illumination." A lengthy paper by Mr. P. J. Waldram, F.S.I., and Mr. J. M. Waldram, B.Sc., of which we here give an abstract, was the principal contribution.

The main object of all investigations into natural illumination, said the authors, is to enable the designer to perform with confidence three operations which at present are directed mainly, if not entirely, by guess-work and rule of thumb :—

(1) So to design windows that interiors are adequately lit for their intended purposes without excessive glass area ;

(2) To determine whether any existing interior is adequately lit ;

(3) To predetermine the degree to which any proposed obstruction will affect the natural lighting of a given interior.

The problems of natural illumination are intricate, but their difficulties are apt to be unsuspected. Even to-day it is somewhat difficult to find an architect or a builder who is not convinced that he knows all that it is necessary to know about illumination by windows. It is still more difficult to find anyone who does.

Although the measurement and predetermination of natural illumination would appear to be a matter for the architect rather than for the illuminating engineer, yet the latter cannot afford to disregard it.

Our knowledge of these somewhat elusive problems has only been acquired during recent years, and it is largely due to the work of this Society that we are in a better position than when it was founded.

In 1907 there was no illumination-photometer capable of measuring daylight ; its huge fluctuations were almost unrecognised, even by scientists, and the utter impossibility of estimating its varying intensity by the human eye was practically unknown. From the meagre data available certain rules for schoolroom windows had been deduced by continental scientists, but no co-ordinated theory on the subject had been published, and popular interest in it was small.

To-day we have Government Reports giving the results of a comprehensive series of daylight measurements taken in all classes of factories both by factory inspectors and by scientific investigators from the National Physical Laboratory, carefully collated and published with a clear and concise epitome of accepted theory.

Legal disputes with respect to obstructions to light are frequently decided upon undisputed measurements, or settled out of court ; and the unedifying spectacle is now seldom seen of eminent and patently honest professional witnesses flatly contradicting each other upon matters of opinion and observation.

This is not to say that, merely because methods of measuring daylight have been devised and have proved valuable, our knowledge is either complete or adequate for ordinary requirements. Medical science did not reach adequate finality with the invention of the clinical thermometer. Evidence that there are still gaps in our knowledge is afforded by the recent erection at the National Physical Laboratory of a building specially designed for the investigation of problems in natural lighting.

The history of study and research in this subject prior to 1908 is almost entirely a record of the efforts of individual scientists to arrive at a proper specification of window lighting for the class-rooms of public elementary schools, and for a long period it was confined to continental investigators.

In 1907 study of the discrepancies between photographic exposures and the corresponding daylight values led one of the authors to the conclusion that visual impressions as to the intensity of natural illumination were most deceptive, and could be even absurdly unreliable. From this followed the logical conclusion that as any window or skylight was merely a narrow gateway through which only a very small portion of the sky could throw light into an interior, and that as the light obtainable from such a portion of the sky was, *ceteris paribus*, closely related to the visible sky area, it should be possible to express the real value of any window under any given conditions of glass, obstruction, etc., as a fraction of the daylight existing outside ; and further, that such a "daylight factor" should be sensibly constant, at least under the grey and fairly uniform sky of dull days, when the effect of any obstruction of visible sky area would be more noticeable and serious.

The Departmental Committee set up by the Home Office early in 1913 to investigate the lighting of factories and workshops disclosed the need for authoritative data. This was duly compiled by the National Physical Laboratory, who reported that the method of measuring by ratios was not only the most reliable, but the only reliable method applicable to daylight illumination.

In 1907 Dr. Ruzicka suggested in an article in "The Illuminating Engineer" that daylight problems might be studied in scale models. One of the authors carried out some experiments to ascertain whether the "daylight factors" of typical points in a room of which the windows were partially obstructed by buildings opposite, the obstructing wall surfaces having a measurable coefficient of reflection, would accurately be reproduced in a scale model of the room and window opposed to scale model obstruction coloured to give similar coefficients of reflection.

From these experiments he formed the opinion that model tests were reliable if suitable precautions were taken, and advocated their adoption to this Society in 1908. In 1913 he secured the invaluable assistance of Prof. Clinton, and carried out with him at University College a somewhat drastic and exhaustive test of the accuracy of model tests. The accuracy of scale models has now been completely accepted by the National Physical Laboratory.

During 1912 and 1913 a Committee appointed by this Society, including school medical officers and teachers, undertook the investigation of the lighting conditions of schools. The recommendations contained in their Report on Artificial Lighting were strongly recommended for adoption by the Chief Medical Officer of the Board of Education in his Annual Report in 1913, and the Committee's Second Report, dealing with the daylight lighting, was published shortly before the war.

Fortunately, the publication of the Report was sufficiently early to secure comparison of its recommendations with those of continental scientists up to that time, and it was not without significance that the main recommendation of the Report to the effect that the daylight factor for the worst desk should be one per cent. of the light on an unobstructed window-sill proved to be precisely identical with the recommendation of Dr. Weber, as the result of many years of patient work by himself and Dr. Cohn, upon lines of investigation totally different from those adopted by the Committee.

The foregoing record of progress, important though it be, is confined to the measurement of daylight illumination and to definition of its adequacy for different purposes. In spite of large and unsuspected fluctuations, it is now possible to measure daylight and to value it for comparison with recorded averages found sufficient for similar or different purposes.

But the rules for obtaining any given daylight factor under any given circumstances have still to be written. The photometer will tell us what we receive under any given conditions ; but it will not tell us how we may obtain the same illumination under different circumstances, nor what we shall obtain if the circumstances be changed. We can now measure, but we cannot yet predetermine daylight. In the paper, methods are suggested by which this may be accomplished.

The problems relating to illumination derived from the sky have but little in common with those dealing with illumination from artificial sources. Daylight illumination is far less simple. The source which illuminates interiors is the sky visible through some aperture, and the brightness of this source is by no means constant. It varies not only from minute to minute, from hour to hour, and from month to month, but it can vary also at any given time over even a small area of sky ; the daily and seasonal variations being not merely of the order of ten or twenty per cent., but often as much as five or six hundred per cent., whilst the variations in brightness in different portions of the sky can be as much as 100 per cent.

But the fact that a sky of uniform brightness seldom occurs for more than short periods does not necessarily mean that a serious or even any error is introduced, provided that the measurements are so conducted as to eliminate the error.

It is, however, evident that an isolated reading of the indoor illumination without reference to the outside conditions can by itself have no value whatever, for if taken five minutes later it may equally well be twice or half as great. Moreover, these differences, enormous though they are, pass quite undetected by our eyes, which, without our being aware of the fact, are continually adjusting themselves to the varying intensities of illumination to which they are exposed. Herein lies another and most important difference between artificial and natural illumination, for the ocular mechanism which operates so perfectly under natural light fails almost entirely to cut off excess of artificial light ; and we are in consequence accustomed to misjudge daylight illumination to an enormous extent ; thinking, not unnaturally, that if our eyes tell us at once when artificial illumination varies, they would also detect variations of a similar magnitude in daylight illumination—and where we perceive no difference we suspect none.

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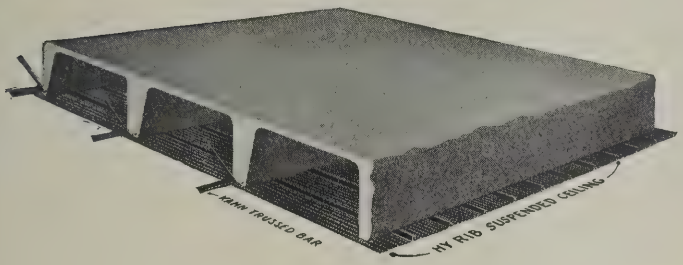

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Hence, although artificial illumination may be judged by the eye with fair accuracy, the opinions of any two observers who attempt to judge daylight illumination by the unaided eye at different times are likely to differ greatly; even ridiculously.

The authors concluded with the following summary:—

The only existing methods for predetermining windows are certain well-known rules which purport to determine the area of glass as a proportion of the floor area lit, possibly modified by keeping the window head at a minimum height determined by the depth of the room. Such rules, if correct for cases in which the obstruction of neighbouring buildings is negligible, must necessarily be incorrect for obstructed windows, for any obstruction necessarily alters the essential properties which enable a window to illuminate a room. These are:—

(*a*) The area, angular height and possibly the aspect of the visible sky at the back of the room or at the worst lit position in the room—which determines the minimum daylight factor due to direct light from the sky; and

(*b*) The amount, and possibly the aspect, of the visible sky subtended at the window, which, in conjunction with the colour of the walls and ceiling, determines the contribution to be made to the minimum daylight factor by diffusely reflected light.

The term "visible sky" includes, of course, due allowance for any obstructions which can appreciably reflect light.

In the large majority of cases windows can be designed with much the same confidence as that which we should have in sailing a boat in the middle of a tidal estuary without fear of running aground. It is only when we get into the shallows that we feel the need for charts, soundings and tide tables.

Except in crowded towns, it is generally not difficult to light all interiors adequately by means of windows of moderate size and height without spoiling the balance of fenestration in adjoining elevations or incurring the disadvantage of excessive glass area.

This is rather apt to engender in the designer a misleading sense of ability to deal with all situations which may occur. It is only when he encounters cases of severe sky obstruction coupled with deep rooms and the necessity or desirability of retaining a small window area that he feels the need of more exact methods of predetermining daylight problems, for a mistake, once made, is generally irrevocable.

The object of this paper is to supply that want. It is assumed that the dimensions of the interior, the window and the obstructions have all been fixed, and that it is necessary to ascertain whether those conditions will result in an adequate daylight factor at the worst lit point, or at any number of doubtful points in the interior.

It is thus at present mainly a trial and error method, although, with its help, it may prove to be possible at a later date to formulate general rules giving the window dimensions necessary under any combinations of circumstances, although the labour involved will necessarily be heavy.

The following summary of the operations necessary in any particular case will serve to indicate their simple character:—

(1) *Direct Light.*—From the worst lit positions in the given interiors, or from any number of doubtful positions, the sky visible through the window, windows or skylight over any obstructions which may be present is plotted by its angular co-ordinates on a suitable measuring diagram, representing the quarter sphere of visible sky. The divisions are so adjusted as to represent by the area any piece of the visible sky its power of illuminating a surface at the point under consideration. This plotting can usually be done from the plans and sections, but the rather tedious work involved can be greatly reduced by the judicious use of simple trigonometry.

The direct light factor is then obtained by comparing the area of visible sky with the area of the diagram.

(2) *Diffused Light.*—To the above must be added the contribution made by diffusely reflected light. We certainly require much more and much better data of this, but it can generally be estimated as lying between the limits of 1 per cent. (sill ratio) in the case of exceptionally shallow rooms with large windows and nearly white walls, about 0·4 to 0·5 per cent. in ordinary rooms with light walls and ceilings and small obstruction, and well below the grumble point of 0·4 per cent. sill ratio when the obstruction is material.

(3) *Sunlight.*—The hours of possible sun which can enter the room can be ascertained by similar methods described in Appendix I.

If the result is insufficient or excessive, the diagrams show at once in what particulars any of the assumed conditions can most effectively be varied.

In conclusion, it should perhaps be emphasised that methods of measurement only serve to assist our judgment—they will not do our thinking for us. The clinical thermometer helps the doctor to use his medical knowledge and experience with more assured accuracy, but it does not supply the place of eith qualification, for no two cases are exactly similar.

However great, therefore, may be the degree of accuracy t which we may bring methods of measuring and predeterminin daylight, they can never take the place of intelligent observatio experience and judgment, for no two cases ever present the sam features.

The undue length of this paper may perhaps be forgiven whe it is realised how wide is the gap between the mere measuremen of daylight illumination in existing rooms—which is the lim of our present published knowledge—and any accurate solutio of everyday problems, such as window design, especially if th methods adopted are to be simple and straightforward.

This paper does not purport to lay down dogmatic rules as t how that gap should be bridged; it merely suggests a simp method of bridging it.

The authors have endeavoured to describe the propose structure complete with all its details and calculations.

Although in this country we are still protected from the mo ghastly results of sky-scraper building, yet cases of bad lightin can undoubtedly be found in many of our older industrial build ings. The typical modern factory has usually plenty of glas area. Some, in fact, appear to have too much, the glazed open ings being unnecessarily large, and extended to positions whe no useful light can enter.

It is quite possible to reduce the solid walls of a factory to point where even exorbitantly expensive warming and ventilatin plant will not suffice to keep the rooms reasonably warm i winter and healthily cool in summer.

But even these evils are preferable to the poky and often dirt little windows of the typical early Victorian factory. One find only too frequently in palatial blocks of City offices back room devoted to clerks and typists, who have no trades union and n factory inspectors, most inadequately lit from light wells whic the architect has been tempted to reduce to insufficient dimen sions for the sake of additional floor space. It is true that suc light wells are generally faced with white glazed bricks an occasionally they are cleaned. But even if such glazed wall could reflect 100 per cent. of the light incident on them and wer kept perfectly clean, they could never equal the sky which the replace. A glazed wall facing South would certainly be in position to reflect light from a portion of the sky which, *on fi days*, is of a greater average brightness than that which is opposit to a window facing North. But it is on dull days, not on sunn days, that the mischief is done. Even the best glazed facing waste some 20 per cent. or more of the light which falls on ther in the process of reflection when clean, and considerably mor when neglected. Also they can generally receive light from onl a small portion of the sky, and are therefore necessarily muc darker than the sky itself. In addition they are often cut u by windows, the glass of which reflects practically no useful light

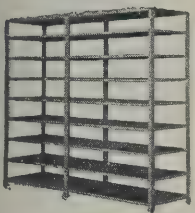
The improvement of cases of bad natural lighting is invariabl attempted on the general lines of making the most of what sk is left. Light coming from the sky at too steep an angle to ente the window or at least to penetrate far into the room is caugh on inclined mirror reflectors placed outside the window an directed more or less horizontally into the room.

The same effect is obtained by the use of prismatic glas either glazed in the window sashes or used in the form of inde pendent outer sashes inclined at a suitable angle to effect th desired refraction.

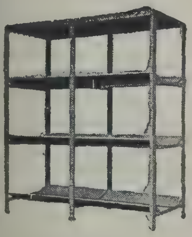
Much care has been directed to the production of these pris matic glasses, of which some excellent kinds (Luxfer, Pilkington's etc.) are on the market, and when properly installed they ca undoubtedly effect remarkable improvements in the lighting o basements and of rooms at the bottom of deep light wells.

Where light is required mainly in a horizontal direction, as i basement stores, they are excellent; but for clerical work the unnaturally horizontal direction which they give to the ligh and their tendency to specular reflection and glitter is undoubtedl bad, and rooms lit with them should always be so arranged an furnished that the occupants shall normally work with a side light.

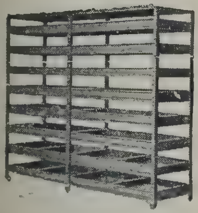
The "Times" of Saturday, April 7, contained a photograph of a bust of Lord Allenby erected in the public square of Beer-sheba and recently unveiled, which strikes us as unique in its defiance of every principle of taste. It consists of a colossal bust crudely cut off below the shoulders and placed upon a large Corinthian column, with which neither the photographic realism of the detail—the cap-badge, for instance, appears in its place—nor the crude character of the bust itself bear any relation. The bust is irrelevant to the column, the column to the bust, and the result is more discordant than anything in Père Lachaise. We shall hope to see no more work by "the sculptor Melnikoff of Jaffa" in connection with any honoured English name.



Plain Skeleton Shelving



Tire Shelving



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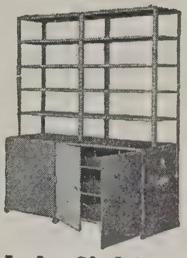
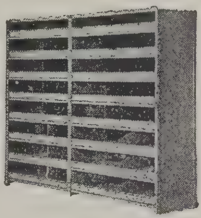
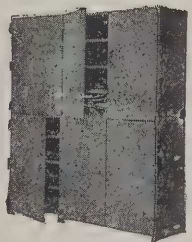


Ledge Shelving with Doors



Bins with Partitions



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General.

Mr. Adrian Berrington, Professor of Architecture at Toronto University, died in London on the 5th inst., at the age of 36.

The Bishop of Bath and Wells has impressed upon the diocesan clergy, the parochial church councils and others the need of consulting the Advisory Committee for the protection of church buildings as soon as any scheme for restoration or improvement is proposed.

The Town Planning Institute have changed their address to Maxwell House, 11, Arundel Street, Strand, W.C. (immediately opposite previous address). A room has been secured at this address as the Institute Headquarters and for the housing of the Library, which it is hoped will be installed there in the course of a few weeks.

Mr. S. R. Crocker, architect, Swansea, has prepared plans for extensive improvements on the Newport Athletic Club's Rugby football ground. A new grand-stand will provide seating accommodation in the enclosure for about 2,000 spectators; there will be covered accommodation for about 4,000, and a new open stand adjoining the new grand-stand will accommodate a further 2,000.

The Worcester City Council have accepted the tender of Mr. B. W. Whitehouse, of Birmingham, for the erection of forty non-parlour houses of the "A" type on the Bromyard Road site at a cost of £13,566, or £323 per house. The lowest local tender averaged £370 per house. At the same meeting a resolution was carried urging the Ministry of Health to hand over Goodrest site for the erection of 120 houses.

The last monthly meeting of the Council of the Incorporation of Architects in Scotland was held—Mr. T. P. Marwick, F.R.I.B.A., president, in the chair—at 15, Rutland Square, Edinburgh, the property which was bequeathed to the Incorporation as headquarters by the late Sir R. Rowand Anderson. The property has been recently altered and renovated under the supervision of Messrs. Begg and Lorne Campbell, architects. There were elected four Fellows, three Associates, and six Students. The treasurer's accounts for the year 1922 were submitted, and showed a substantial surplus for the year. Reports were submitted by the Housing and Finance Committee, the Education Committee, and the Practice Committee. The number of members of council for the ensuing year was fixed at twenty-four.

A novel scheme, under which for the payment of 1s. per week, in addition to the rent, for a period of 19 years, and in certain cases earlier, a tenant can purchase his house and thus become his own landlord, has been inaugurated by the Shireoaks Colliery Company, Ltd. The scheme applies to the village of Rhodesia, recently laid out and built by the colliery company for their employees, and which comprises 118 houses. The company are prepared to enter into contracts for the sale of non-parlour houses to employees for £400, granting mortgages at 2 per cent. A workman leaving the employ of the company would be charged an additional 2 per cent. Purchasers are at liberty at any time to pay off the mortgage and obtain absolute control of the property. Rents at Rhodesia are 12s. 6d. per week per house, and prospective owners will have to pay 13s. 6d. per week, together with a deposit of £10.

A Successful Scotch Enterprise.

Amidst the complexities of the post-war welter, two problems have been persistent—the question of providing regular and remunerative work for ex-Service men and the housing shortage. The State has been unsuccessful in both directions, and, indeed, the whole tendency of recent experience has been to confirm the truth that trades and commerce, like individual men, are likely to do best when left, as much as possible, to work out their own salvation. The sheet anchor of national prosperity is still to be found in private enterprise.

An interesting illustration of this principle is supplied by the record of work achieved by the Craighall Building Slab Works, of Port Dundas, N.B., started by Sir Peter J. Mackie, Bart., J.P., of the famous distilling firm, with the whole financial backing of that company behind it, and having for its double object the manufacture of slabs for building purposes and the provision of employment for ex-Service men. Conceived on commercial lines, the venture has proved entirely successful from its inception, and has so developed that arrangements recently have been made for a much increased output.

The outstanding recommendation is that the company's slabs, which are made of the British standard Portland cement and finely riddled clinkers, not only are as durable as brick or stone, while costing less, but, further, that they can be turned out with such celerity that any ordinary man is capable of producing in an equal time double the measurement of brick or stone. The slabs, besides being what is required for the erection of a hou
from the foundation to the roof, it follows that houses can l
built with them in a far shorter space of time than is possib
where brick and stone are used. Thus, while the cost of buildi
is kept down, the pace of construction is speeded up. Add
this the admitted superiority of British Portland cement ov
all others, and it will be apparent that the Mackie building sla
suggest a ready solution of the worst factors that go to compo
the housing problem. Those desirous of more ample particula
will do well to send a note of their requirements to Messrs. Mack
& Co., Distillers, Ltd., 217 West George Street, Glasgow; bu
in general, it may be stated here that, in bungalow style, e
perience suggests as best for the exterior walls 2½ inch T block
using a 4 inch air space, the exterior to be covered with Pud
and rough cast and the interior plastered, the uniformity of t
walls reducing the risk of fire by doing away with the need f
laths. For a two storeyed building a 3 inch block is mo
suitable, while in buildings of either type a 2½ inch partiti
slab will be found adequate for interior walls. Outside slab
which are faced with artificial stone and require no rough-castin
can be supplied.

It seems certain that, with the recent enlargement of t
business, as well as with the considerable expenditure on equi
ment and organisation the Mackie slabs, already ranking
undeniable acquisitions in Scotland, are bound to make go
wherever known on this side of the Border.

Trade Notes.

B. Whitaker & Sons (1923), Ltd., have been incorporat
with a capital of £250,000, divided into equal portions
ordinary and 8 per cent. cumulative preference shares of
each, and public subscriptions have been invited for the who
of the 125,000 preference shares at par. B. Whitaker & So
(1923) have been formed to acquire the business of an unde
taking carried on under a similar title. Their assets inclu
the Horsforth and Pool quarries and sand and gravel quarries
Stourton and Rothwell, near Leeds; the Huncoat Brick Work
at Accrington; and the Leeds Patent Brick Works. The co
pany are public works contractors, etc., and are the owners
the Bramley Fall stone quarries. Their profits rose fr
£14,965 for the year ended September 30, 1920, to £23,997 f
1920–21, and to £31,608 for 1921–22, the average for the thr
years being more than twice the amount required to pay t
dividend on the preference shares. The business will be tak
over as from September 30 last, and the purchase price has bee
fixed at £150,000, of which £100,000 will be satisfied by t
allotment of ordinary shares.

The Associated Portland Cement Manufacturers, Ltd., he
their twenty-fourth ordinary general meeting on April 12
River Plate House, Finsbury Circus, E.C. The report of t
directors states that the revenue for the year 1922, after pr
viding for taxation, amounted to £675,396, making, togeth
with £224,043 brought in, a total of £899,439. Directors' a
trustees' fees accounted for £5,279, debenture stock, mortga
and other interest £221,516, and depreciation reserves a
sinking funds £208,881, leaving a balance of £463,762. A
interim dividend on the preference shares to June 30, 1922, w
paid on September 30, 1922, taking £62,829, and a final divide
on the preference shares to December 31, 1922, was paid
March 31, 1923, absorbing £62,829, and leaving an availab
balance of £338,103. The directors now recommended t
following dividends on the ordinary shares:—Five per cent. f
the year ended December 31, 1922, on 2,137,320 shar
(£106,866), and at the rate of 5 per cent. per annum for t
period May 15, 1922, to December 31, 1922, on 119,895 shar
(£3,796), leaving to be carried forward £227,440.

We have received a catalogue of some forty-odd pages fro
the Columbian Fireproofing Co., Ltd., 82-83, Windsor Hous
Victoria Street, S.W., which is fully descriptive of this lon
established and widely-used system. Very briefly it may
described as consisting of special heavy ribbed steel bars embedde
in concrete which are suspended in steel stirrups over steel jois
and between main girders or resting on walls. Just twent
years ago the company secured the only gold medals awarded
the International Fire Exhibition in the fire-resisting classes
concrete floors and roofs. The floors are certified as "A—Fu
Protection" by the British Fire Prevention Committee. Perha
even more eloquent of merit than the above facts or the stati
tical tables of safe loads or the diagrams is the list and the
photographs given in the catalogue of important buildings an
public works constructed on the Columbian system in Londo
and the provinces. His many friends in the profession wi
be pleased to know that Mr. J. D. O'Brien is the Managin
Director.

VOL. CIX.—2835. THE ARCHITECT APRIL 20, 1923.

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Architectural Freaks.

We have recently given a series of articles on what re known as "Follies"—that is, the curious and often bsurd buildings erected in different parts of the country y eccentric people, more often without than with archiectural advice. But besides these buildings there are nany which owe their origin to the desire of architects o do something unusual and not to the peculiar equirements of any employer, and these buildings we nay designate as being architectural freaks.

The famous Triangular Lodge at Rushton in Northamptonshire cannot be called an architectural r architect's freak, for in the first place it belongs ather to the age of the master builder than that of he architect as we now know him, and in the second it s impossible to say how far its peculiar shape was due o Sir Thomas Tresham's desire to erect a monument vhich in some manner exemplified the Holy Trinity. f this is its real *raison d'être* it belongs to a category of uildings and monuments which owe their form to easons connected with religious observance or mystiism.

What may be called an architectural freak depends n the sentiment or prevailing opinion of an age. For nstance, the building of a replica of Blenheim Palace o-day would be rightly designated as an architectural reak, because the service arrangements necessitated y the plan are impossible under modern conditions. n Vanbrugh's time, on the other hand, such conditions nd discomforts were accepted as a matter of course, rovided their adoption made possible the ordered nagnificence required in a great house of the date of Queen Anne. In the same manner in smaller details he understood spirit of an age sometimes necessitated he provision of ranges of sham windows, urns for himneys, and other curious devices to cloak wants vhich seemed to another generation improper for rank expression. All such devices to-day might be easonably described as being due to the freaks of a esigner, since the modern employer would neither sk for nor like them.

Architectural freaks may be defined as being usually ue to the desire of an architect to produce something hich is quaint or unusual by forced means.

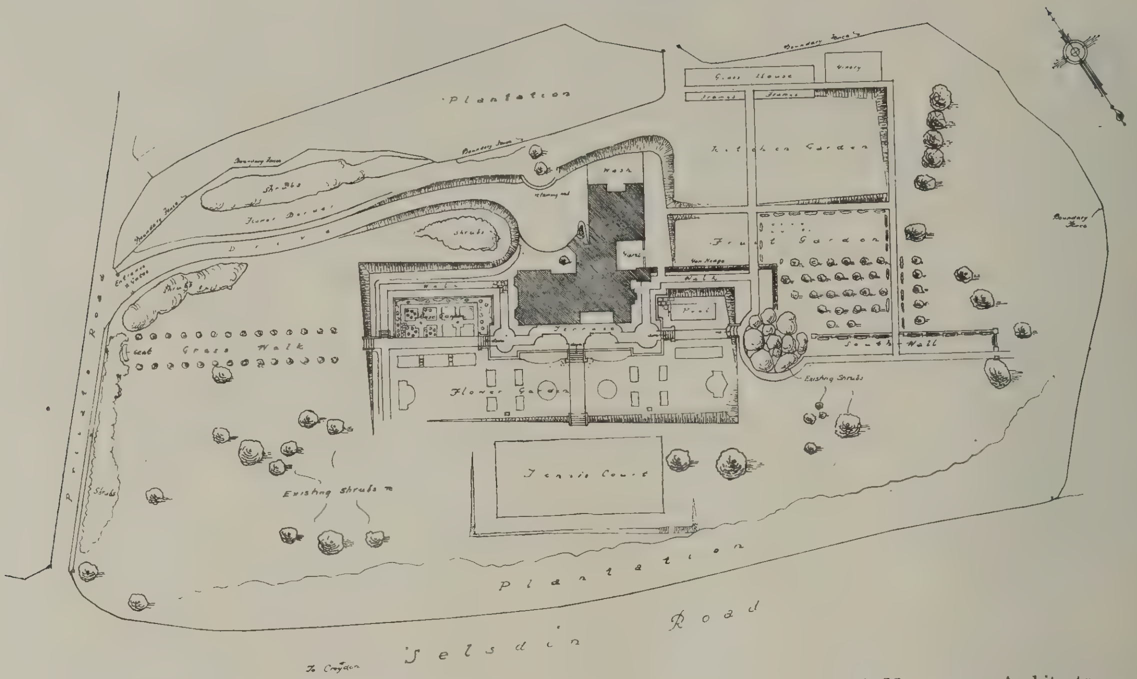
He may have admired the manner in which an old vindmill has been converted into a house or a portion f a house, and his fancy may be pleased by building n entirely new house in some similarly unusual form. f he does so the result is an architectural freak whether e has succeeded to admiration or failed in his ttempt. Or he may build a restaurant and treat it o look like the cabin of an old man-of-war. If he oes this to please himself the result may be escribed as being an architectural freak. On the ther hand his client may have instructed him to nake a novel design which will attract notice and ttention, and in such a case he is fully justified in ndulging in fancy. The product of his work serves the urpose of a subtle advertisement, and may be good, ad or indifferent like the latter. If an architect has a triangular or many-sided site to deal with he must arrange a building on lines which are unusual and ingenious, but if, having a free site which does not suggest any peculiar disposition of plan, he yet adopts one, his work may be described as a freak.

But freaks in the field of design quite as often take the form of the omission of the usual as the addition of the unusual, and of such a character are many buildings we could enumerate in which cornices and other expected features of design are omitted and their place taken by the recessing of surfaces in unusual positions, by the great attenuation of columns, or their treatment with weird and simplified mouldings or unusual capitals. Or we might have a house planned round a certain courtyard into which the only windows opened in order that the fronts might be carried out in unbroken surfaces. Such a house would be a freak design, the production of which would please the architect's ingenuity. On the other hand such a house might be legitimately built in some outlying district of a half-civilised country where protection from outside interference was of the first importance, in which case it would be the logical outcome of exceptional requirements.

While we often hear too much stress laid on logic in design by writers who appear to think that the design of a building can be reduced to a scientific formula, there are undoubtedly many mistakes made by incompetent men which can be very properly described as instances of illogical design. What is really required is that the designer's treatment of his problem should be marked by what may be best described as a spirit of pleasant sanity.

The danger attending the production of freak designs is, firstly, that they are more often than not, as the architect knows, relatively expensive when compared with plain straightforward design, and, secondly, that they are very seldom the outcome of a client's wishes though they may be accepted by him because he is ignorant of their real nature, which is only revealed to him on the completion of the building when it is too late to alter arrangements. The danger of freak designing is that it possesses a fascination for the ingenious architect, whose procedure has been that of artificially complicating the conditions of a game, of the rules of which he has expert knowledge. Most of us know the fascination of emphasis, which may take the form of extreme simplicity or extreme elaboration, but neither is likely to appeal to the average man. For, after all, an architect's clients usually want buildings for certain uses, and are not satisfied to think that an architect has used the opportunities given him to please himself by theorising in form or detail, though opportunities do come from time to time in which an architect can reasonably display his utmost imagination in coping with some exceptional situation, but in most cases more obvious methods will be preferable to those who wish to retain or increase the number of their clients and their own reputations.

Our Illustrations.



LAY OUT SCHEME FOR PROPOSED HOUSE AT SOUTH CROYDON. Young & Macintosh, Architects.

HOUSE AT SOUTH CROYDON. Young & Macintosh, Architects.

The house is designed for a site sloping towards the south. Advantage has been taken of the existence of a private road on the east side, thus permitting the house to be placed well back towards the north boundary and allowing the principal rooms to overlook the garden and enjoy the south aspect.

The materials to be used are selected, rustic, kiln-burnt, multi-coloured dark bricks, sand-faced tiles and oak half-timber work. Internally the principal rooms and stairs will be panelled in oak and all the fitments carried out to the architects' details.

The garden lay-out has been designed by the architects, and will be carried out under separate contract.

FALLODON.

Messrs. G. Reavell, F.R.I.B.A., and W. Arthur Tebbs, Lic.R.I.B.A.. Architects.

In April, 1917, this residence, the seat of the Right Honourable Viscount Grey, K.G., was destroyed by fire, the servants' wing alone escaping. The restrictions in all the building and allied industries due to the war prevented the immediate restoration of the house, but work was commenced in 1921, and is now drawing to a conclusion. The old house was a quiet type of Georgian, one of the few mansion houses in Northumberland built of brick, which local tradition says were made for this purpose only from clay dug on the estate. It was relieved by stone cornices, copings and window dressings.

The old plan has not been followed, but the spirit of the old work has been repeated. The mellow old bricks were carefully salved and sorted to form the exterior face of the new building, and much of the old weathered stonework has been re-used. The roof is of green Westmoreland slates, and the windows and external doors are of oak.

Fire-resisting floors are used throughout the new building, and are covered with oak blocks.

The hall is top-lighted, being formed with outer glazing in the roof and inner glazing on the curved line of the ceiling. The electric lighting of the hall is arranged immediately above this inner glazing.

The staircase and its balustrade are in oak, the latter being carried round the upper part of the hall forming a gallery giving access to the principal upstairs rooms.

The bookcasing is on an extensive scale, and is built of cedar, preferred for its fragrance, which is alike grateful to the human and distasteful to the literal bookworm.

With central heating as auxiliary the fires are of the "Well" type, the mantelpieces being designed for their various positions.

The work has been carried out by the following firms:—

General Contractors.—Messrs. R. & G. Brown, Amble, Northumberland.

Plumber.—Mr. James Wood, Alnwick, Northumberland.

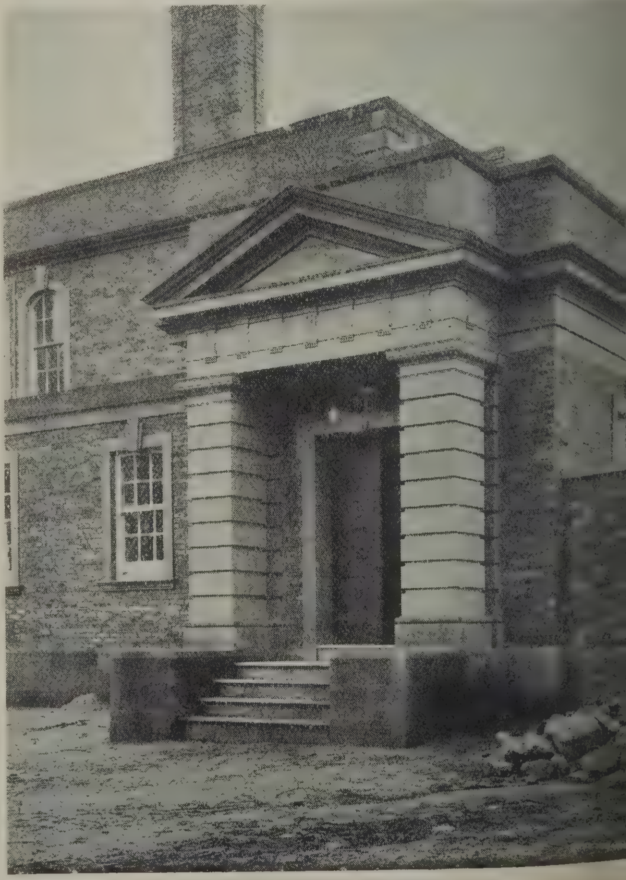
Slater, etc.—Mr. H. Lyall, Amble, Northumberland.

Plasterer.—Mr. J. Purdie, Alnwick, Northumberland.

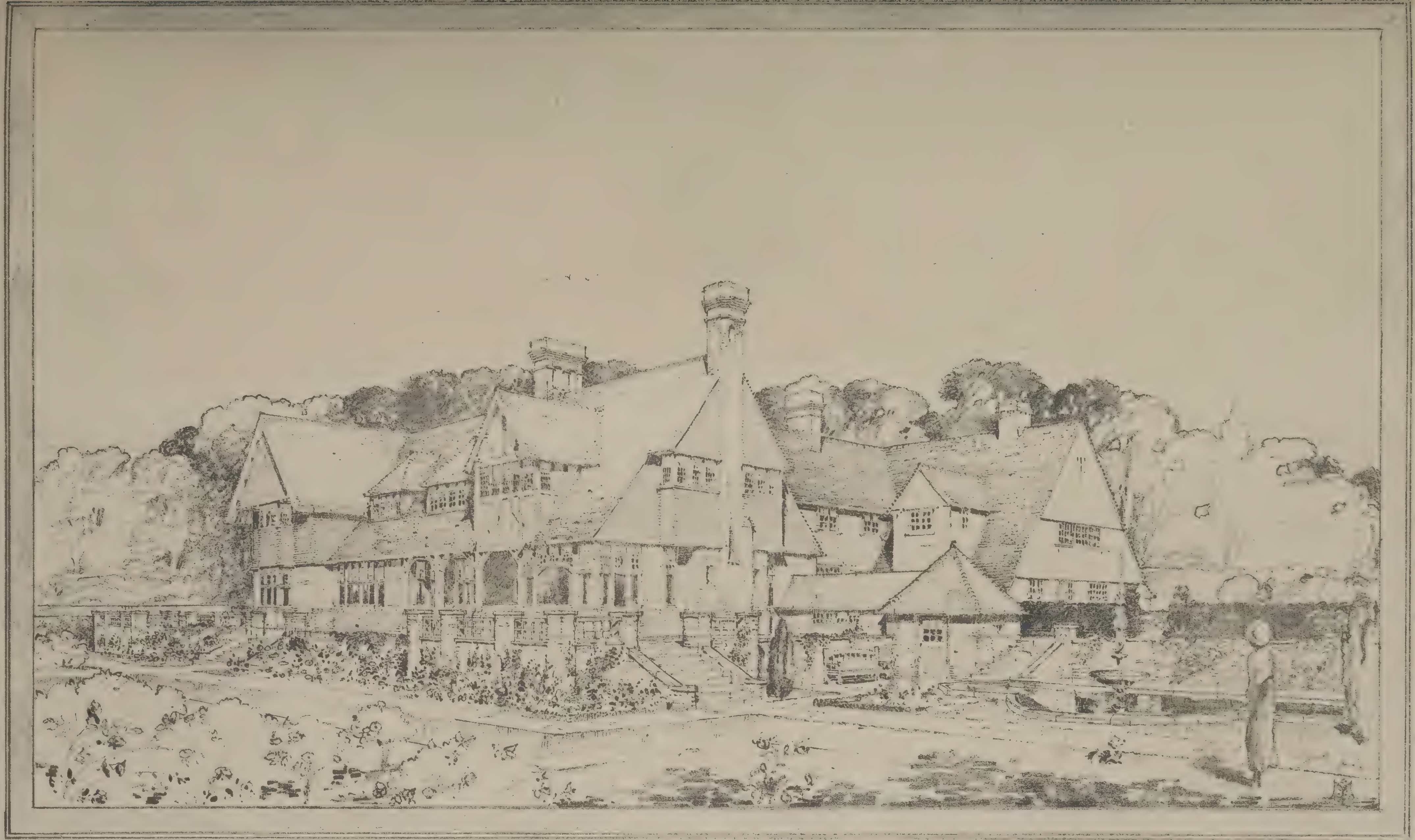
Painters.—Messrs. R. MacKenzie & Son, Sea Houses, Northumberland.

The central heating and grates were by Messrs. Henry Walker & Son, of Newcastle-on-Tyne; the bookcases and mantelpieces, by Messrs. Sopwith & Co., of Newcastle-on-Tyne; oak staircase by Messrs. H. H. Martyn & Co., of Cheltenham; fireproof floors by the Kleine Co.; electric light by Messrs. Falconar, Cross & Co., of Newcastle-on-Tyne; block floors by Messrs. E. B. Burgess & Co., of Liverpool, and tile floors by Mr. G. Spence, of Newcastle-on-Tyne.

The whole work has been carried out from the designs of the architects, Messrs. G. Reavell, F.R.I.B.A., and W. Arthur Tebbs, Licentiate R.I.B.A., of Alnwick, who supervised its execution throughout.



DOORWAY AT FALLODON.
G. Reavell & W. Arthur Tebbs, Architects.



"INK-PHOTO" SPRAGUE-HAYCOCK PRINTERS' LTD 69 & 70, DEAN STREET LONDON

PROPOSED·HOUSE·AT·SOUTH·CROYDON·for·A·CUNNINGHAM·ESQRE· *Garden Front*·

Young & Mackintosh;
Architects Croydon;
Nov. 1920.

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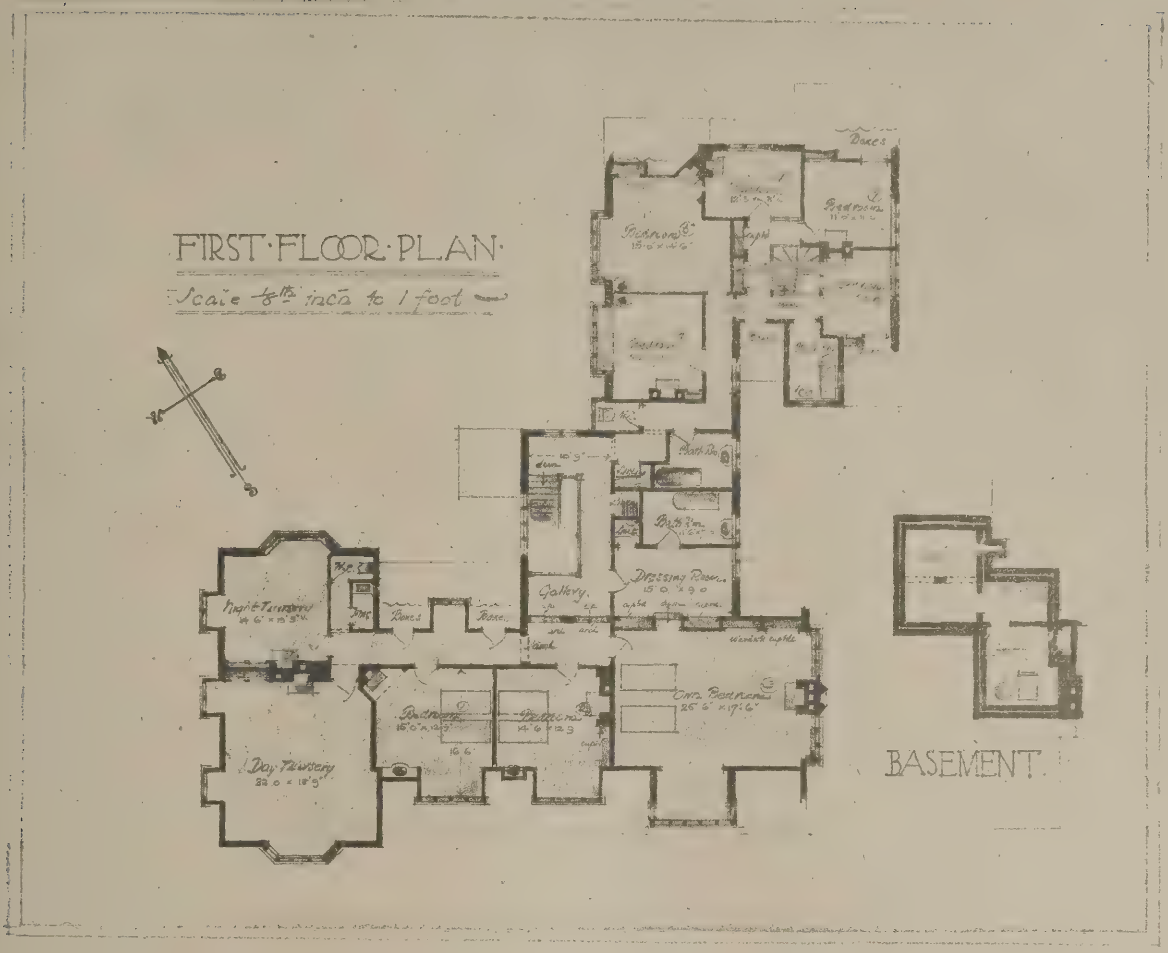

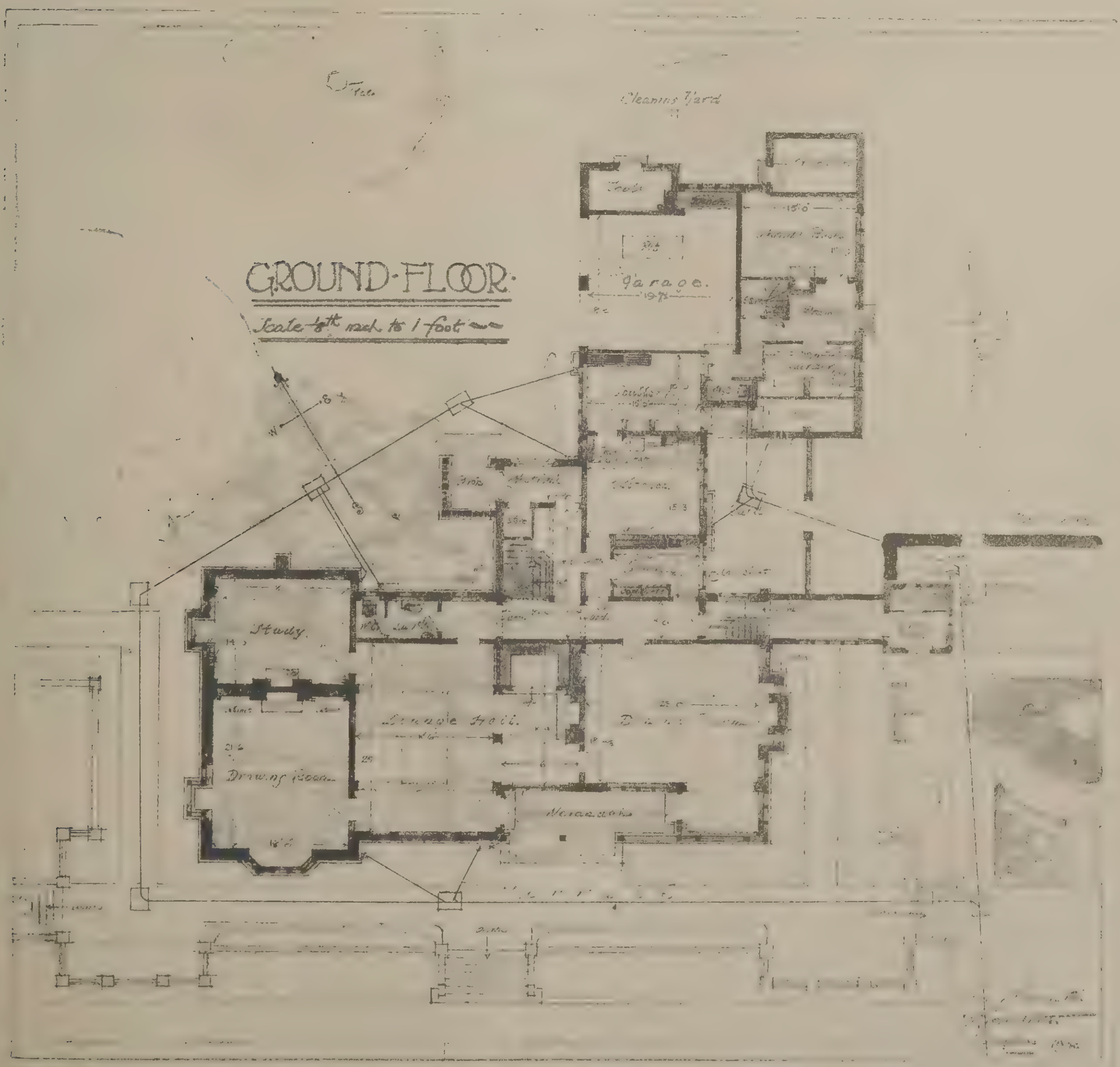

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PROPOSED HOUSE AT SOUTH CROYDON FOR A. CUNNINGHAM, Esq.

YOUNG & MACINTOSH, Architects.

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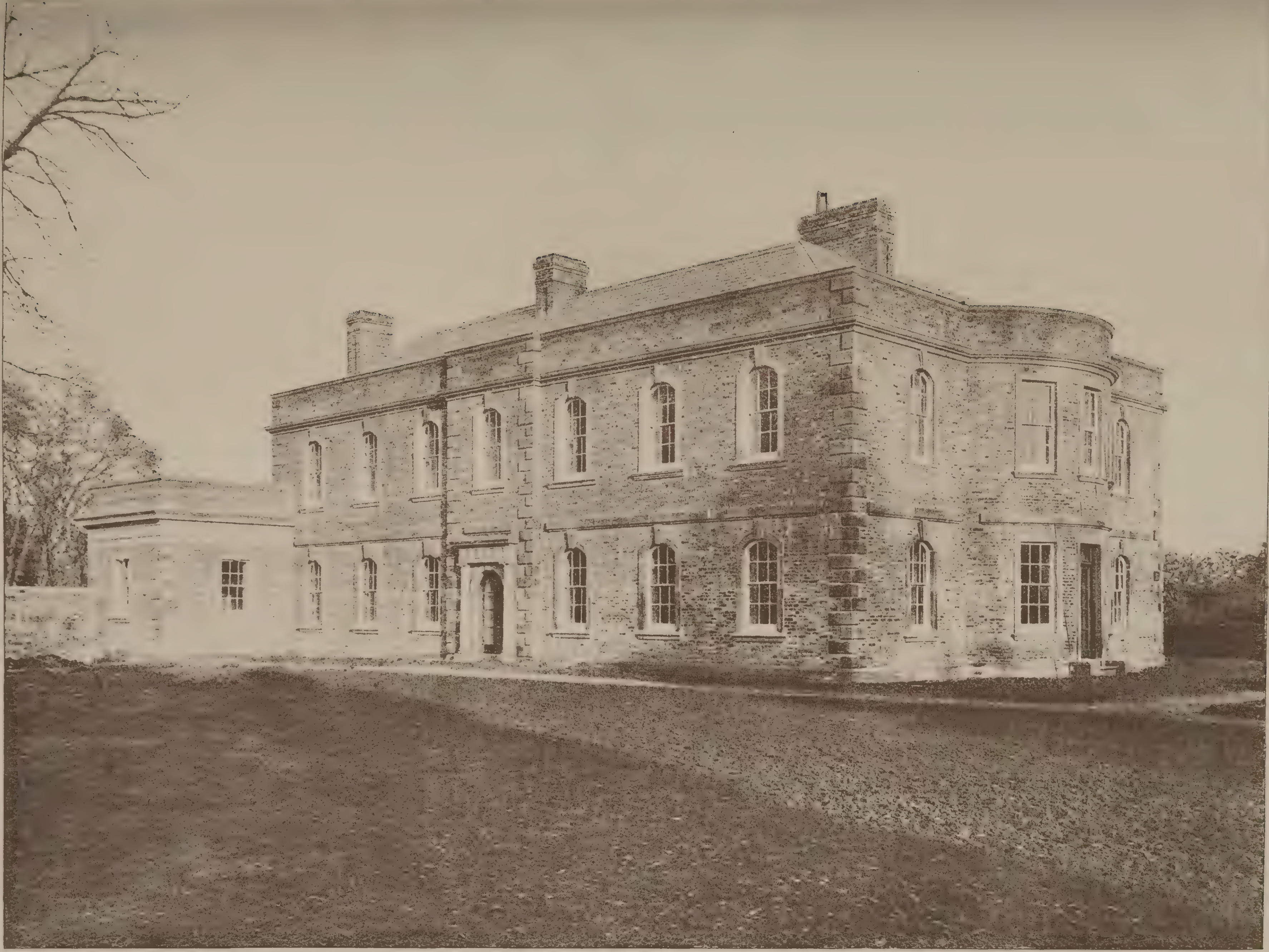

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FALLODON: GARDEN FRONT.

G. REAVELL & W. ARTHUR TEBBS, ARCHITECTS.

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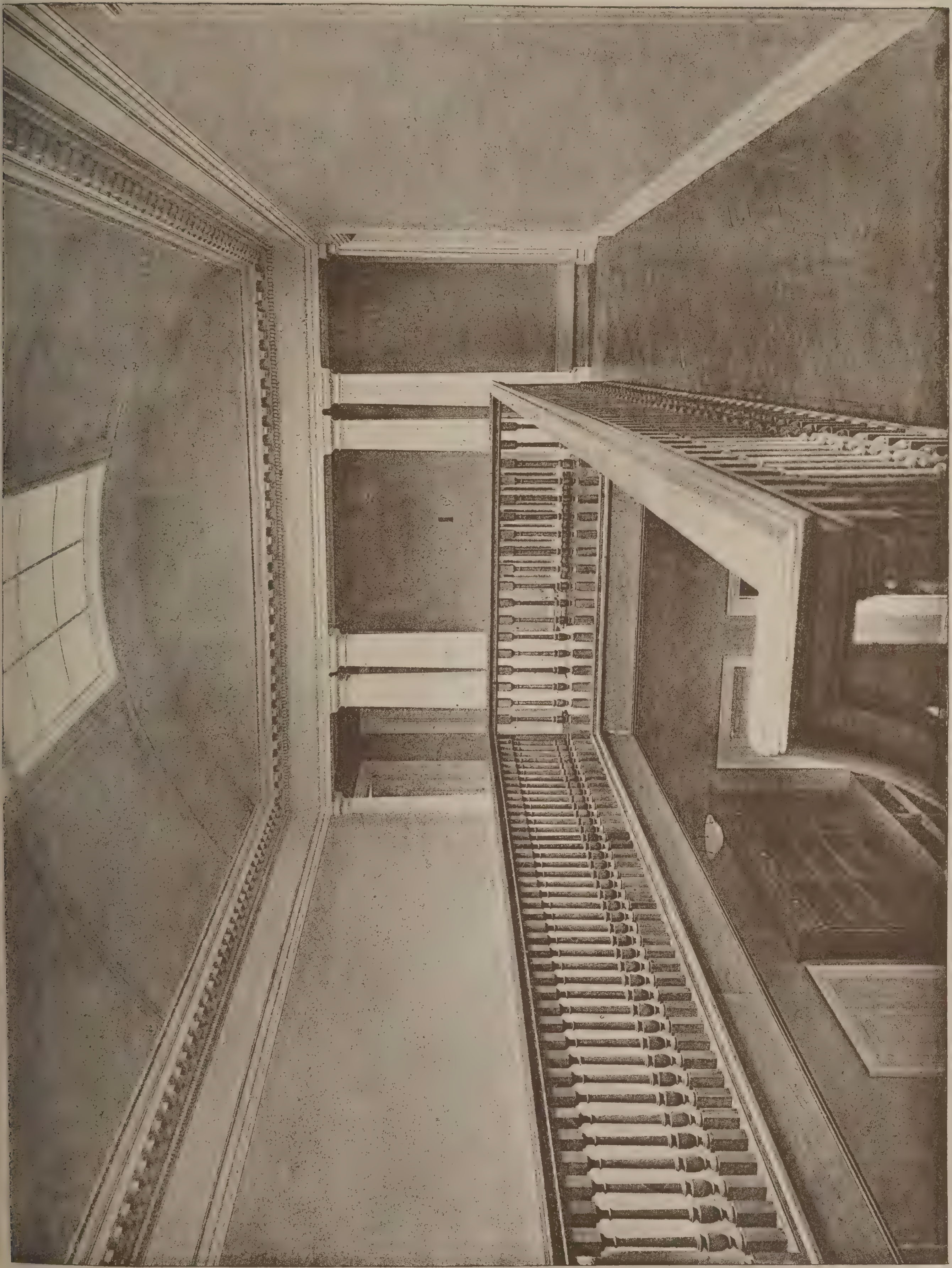

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FALLODON: CENTRAL STAIRCASE.

G. REAVELL & W. ARTHUR TEBBS, ARCHITECTS.

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"THE GAZEWAY," KINGSTON-ON-THAMES.

We illustrate a restored Georgian house, surrounded by a well-laid-out garden, containing many features of interest. It stands facing the river at Surbiton, on the Portsmouth Road.

The house contains some charmingly decorated rooms fitted with the latest improvements for labour-saving and personal comfort.

The decorations cannot be taken as a whole; each room is a complete unit. This method of display has several advantages. Very few people think alike about decorations, but at "The Gazeway" an individual would need to be very hard to please if he could not find one or more of the rooms to be in sympathy with his needs and taste.

Architects would be well advised to take their clients for a personal survey of "The Gazeway"; even if none of the rooms were decorated in such a way as to meet their immediate needs, they would realise that Messrs. W. H. Gaze and Sons, Ltd., were in sympathy with modern decoration and good taste.

Notes and Comments.

The Averted Strike.

It is with unmixed satisfaction that we are able to record the fact that the building crisis has been averted at the last moment, and we hope that now both sides have time for reflection means will be adopted which will put an end to the possibility of a similar hold up in the near future. The acceptance of the principle of arbitration is a great gain, though it should be pointed out that adequate machinery for the prevention of disputes already existed if they had been exercised. It seems incredible that any doubt should have been allowed to exist for months as to whether the masters had or had not given the notice required under the agreement, and a legal interpretation on this point should have not only been obtained but made known to everyone concerned months ago. Too much importance cannot be attached to the sanctity of agreements, without the full recognition of which continual friction must arise; and those who put their hands to an agreement must clearly understand that at any given time they may either gain or lose by it. It is impossible to play pitch and toss and always win—which is apparently what Labour is prone to think it can achieve somehow or other. The Lord Chief Justice has appointed Sir Hugh Fraser as arbitrator, but the assessors have yet to be appointed on each side. The arbitration will probably be opened next Monday or Tuesday.

Academic Dress for Members of the Institute.

A supplement to the "Journal" of the R.I.B.A. contains illustrations of an academic dress for members of the R.I.B.A. These dresses, the designs of which are the outcome of the labours of a Committee consisting of Messrs. W. E. Riley, W. Gilbee Scott, and W. W. Scott-Moncrieff, recommend the gowns as being of a dignified and traditional type and suggest that actual samples should be made in time for the Wren celebrations; the gowns will hide all ordinary clothes. The suggestion is to be submitted on April 30 to the General Body for consideration. The approximate cost of these costumes is £5 5s. to £6 6s. We do not think the General Body will feel much enthusiasm over the proposal, and do not see why they should. Presumably the gowns would only be worn for special occasions, and we doubt if the average architect will be moved to make such additions to his wardrobe. The same amount contributed towards his wife's dress allowance would probably give him more pleasure and be infinitely more enjoyable to him for that reason. If, contrary to our expectation, the possession of this added raiment would obtain him more and richer clients we should be heartily in favour of it: but this point does not appear to be proved.

Two Competitive Disputes.

The public find it hard to understand why the Institute should insist on the payment of a substantial sum, over and above the premiums offered, in the case of competitions for buildings, the execution of which is delayed or abandoned, but we consider this action is wholly reasonable. Promoters are better advised in their own interests not to launch competitions until they are willing to commit hemselves to building, and if they did so these recurrent disputes would be automatically eliminated. But at the present moment both the competitions at Eastbourne and Tunbridge Wells are barred by the R.I.B.A. At Eastbourne the action of the Institute has led to the holding of a ort of informal competition for suggestions of how to pend local funds. A terraced arena, band-stand and bathing-pool is advocated by a local estate agent and stimated to cost £80,000, while many other schemes have also been suggested. Few of our seaside resorts are places we can be proud of architecturally, and we shudder to think what the pundits of Eastbourne, full of wrath against the action of the Institute, may do independently of competent advice. However, these matters must settle themselves as they will, and by the expense of many mistakes people may in the end learn wisdom.

The New Housing Bill.

The new Housing Bill follows the lines which have been predicted and contains little that is novel or of great interest. Local authorities may, if they satisfy the Ministry of Health that houses are required and will not be otherwise provided, assist by lump sum grants after completion, by an undertaking to refund part or the whole of the rates payable and by an undertaking to provide any part of the periodical sums payable by any person to a building society. Provision is also made under the Bill for the maximum contribution by the State of £6 a year for every house for a period not exceeding 20 years. The Bill, therefore, takes the form of a mild encouragement to all persons requiring small houses in the form of a contribution towards their cost and upkeep from the local authority and to their rent from the State. The measure is in brief no new departure, but a modified form of the legislation which in the past has proved mistaken and ineffectual. It remains to be seen whether the medicine which in larger doses proved detrimental is helpful in the proposed diluted form. We confess we do not see why this result should be anticipated, but shall be agreeably surprised if we find ourselves wrong.

The Late E. T. Hall.

We greatly regret to announce that Mr. Edwin Thomas Hall, F.R.I.B.A., died on Sunday last at his residence, Hillcote, Dulwich, aged 72. Mr. Hall was a Fellow and past Vice-president of the Royal Institute of British Architects, Fellow and member of the Council of the Royal Sanitary Institute, past Chairman of the Estates Governors of Dulwich College, and a Governor of Dulwich College.

Among the important buildings designed by him were the new Liberty premises in Regent Street; St. Ermin's Hotel, Westminster; Park Hospital, Hither Green; Plaistow Hospital; St. George's Children's Home, Chelsea; the Library, Dulwich College; the head offices of the Metropolitan Asylums Board on Victoria Embankment; the Seacroft and Killingbeck Hospitals, City of Leeds; the Camberwell Infirmary and Guardians' Offices, Frimley Sanatorium, the New Royal Infirmary, Manchester (in conjunction with Mr. John Brooke of Manchester); the new wing and Nurses' Home for the London Homœopathic Hospital, the Barnato Memorial additions to the Middlesex Hospital, the South Wales Sanatorium, and Meadowslea Hospital, Cheshire, for the King Edward VII. Memorial; the King George Hospital for Wounded, London; the Welsh War Hospital at Netley (in conjunction with Mr. E. Stanley Hall), and sanatoria for London at Godalming, East Grinstead, and other places.

Mr. Hall was well known to his colleagues as an architect of great efficiency and industry who carried out many very important and extensive commissions and was distinguished by the care and thoroughness he displayed in all his undertakings. His knowledge of the legal aspects of the profession was great, and he could always be relied on in dealing with the many and complicated aspects of modern professional practice. His services were always at the command of the profession of which he was a distinguished member.

The Architect in Fiction

By Henry Hyams, F.R.I.B.A.

For some reason or other the architect seldom figures in fiction; it is the members of the other professions who play the leading parts in our plays and novels. We find no architect as a protagonist, for example, in the works of Bernard Shaw. He gives us lawyers, journalists, manufacturers, a dentist, doctors, parsons, soldiers, artists, engineers, and so on, but only once an architect, and then he takes but a minor part in the "unpleasant play," "Mrs. Warren's Profession." He is Praed, "a gentleman hardly past middle age, with something of the artist about him, unconventionally but carefully dressed, and clean-shaven except for a moustache, with an eager, susceptible face and very amiable and considerate manners." The play would be incomplete without him, for he voices the Gospel of Art, the art, principally of foreign cities. Thus: "I'm afraid there's nothing else in the world that I can talk about. The Gospel of Art is the only one I can preach." Still, his gospel is not the real Shavian philosophy of art; it is that of the Count O'Dowda, in "Fanny's First Play, who, having found England befouled with industrialism, did what Byron did, refused to live in it and fled to the beauty of foreign cities. His gospel is no solution to the problem of the play, which deals with a very unpleasant social sore. Praed is much the best of the men in this play, he is a broad-minded, kind old gentleman.

As a contrast to him we think of Pecksniff. Why did Dickens choose an architect to play the part of the supreme hypocrite? There is nothing strange in it, for it is only in great callings that there can be hypocrisy; callings requiring the greatest moral and intellectual qualities give opportunities for the greatest hypocrisy. Pecksniff is everything an architect ought not to be. His genius lay in ensnaring parents and guardians and pocketing premiums for pupils. He was fuller of virtuous precept than a copy-book, becoming great by winning a competition with Martin's plans. At the stone-laying ceremony Pecksniff does not make a long speech, he says simply: "My friends, my duty is to build, not speak; to act, not talk; to deal with marble, stone and brick, not language. I am very much affected. God bless you." He is the supreme hypocrite of fiction.

A more modern, and more truthful characterisation of an architect is that by Galsworthy in his "The Man of Property." This architect, Bosinney, is typical of our modern times, and the whole force of the drama is concentrated upon him. Bosinney is young, poor, and as yet without a practice. He represents Art, while Soames, the man of property, stands for the power of property. The drama is a conflict between the power of property and the Life Force—the Life Force both in art and in nature. Every architect who is a creative artist must at some time or other have fought in this conflict, and nearly every time he is beaten and forced to allow his client to override his artistic conscience. He is the victim of an acquisitive society, instead of being the expression of a functional one. Property, in a well regulated State, should be an aid to creative work, not an alternative to it, and until it is so we shall have people of the Soames type and the consequent prostitution of art to property. As Professor Lethaby points out, "One of the most important things in modern architecture is the art of dining out."

Bosinney dines out and meets the man of property. Soames asks questions about Bosinney and receives the reply:

"One of the new school."

"Clever?"

"As clever as you like—a bit—a bit up in the air." While we get descriptions such as this of Soames: "'He knows a good thing, he knows a safe thing and his grasp on property—it doesn't matter whether it be wives, houses, money, or reputation—is his hall-mark,'" for descriptions of Bosinney the author stands apart, and we have to read them from the minds of these people of property. This psychological method gives to the tale its peculiar charm These people give the architect the nickname of Th Buccaneer, and Soames, looking at him, muses thus "No one but a clever man, or indeed a buccaneer, woul have taken such liberties with his appearance; and thoug these appearances were revolting to Soames, he derived certain satisfaction from them as evidence of qualities b which he must inevitably profit. If the fellow could buil houses, what did his clothes matter?" He realises, too that in giving the young architect the work, he would b giving him the means to marry and the beginning of practice, and that therefore he should get good term Again, "Bosinney looked clever, but he had also—and i was one of his great attractions—an air as if he did no know on which side his bread were buttered; he shoul be easy to deal with in money matters." A peep int Swithin's mind gives us this as Bosinney: "Prominen forehead, cheekbones and chin, something hungry in hi face which quarrelled with Swithin's conception of cal satiety that should characterise a perfect gentleman. To these people's eyes "Bosinney appeared to have n habitat, he seemed one of those rare and unfortunate me who go through life surrounded by circumstances, property acquaintances and wives that do not belong to them. Again, another says: "'Look at the way he threw up hi chances when he left my office: going off like that for few months with a knapsack, and all for what? To stud foreign architecture—foreign! What could he expect And there he is—a clever young fellow—doesn't make hundred a year.'"

At length Bosinney is commissioned by Soames to desig the house, amd although he has a hard task to get his ow way in matters of art, yet things begin well, and we fin Soames "confusedly debating how it was that this fello whom by habit he despised should have overborne his ow decision." Bosinney theorises: "In architecture," he wen on—and though looking at Soames he did not seem t see him, which gave Soames an unpleasant feeling—"a in life, you'll get no self-respect without regularity. Fellow tell you that that's old-fashioned. It appears to b peculiar, anyway; it never occurs to us to embody th main principle of life in our buildings; we load our house with decoration, gimcracks, corners, anything to distrac the eye. On the contrary the eye should rest; get you effects with a few strong lines. The whole thing is regularity—there's no self-respect without it." Soames, th unconscious ironist, fixed his gaze on Bosinney's tie which was far from being in the perpendicular; he was unshaven too, and his dress not remarkable for order. Architectur appeared to have exhausted his regularity. The house i to be a wonderful place with space, air and light "wher you can live like a gentleman."

"Won't it look like a barrack?" Soames enquired.

He did not not at once receive a reply.

"I can see what it is," said Bosinney, "you want on of Littlemaster's houses—one of the pretty and commodious sort, where the servants will live in the garrets and the front door will be sunk so that you may come u again. By all means try Littlemaster, you will find hi a capital fellow. I've known him all my life."

Soames, however, thinks he had gone too far in disguising his satisfaction with the plans, he sees that Bosinne was "just the kind of fellow who might turn up the plan and refuse to act for him; a kind of grown-up child."

The work goes forward, but again and again there i trouble. Bosinney expostulates: "'What you want i fact is a first rate man for a fourth rate fee, and that' exactly what you've got.'" Then comes further disagreements, and the young architect refuses to act furthe unless he is to have a free hand. "Bosinney must hav been moved by some sudden revolt against his positio towards Soames, that eternal position of art toward Property—which is so admirably summed up on the bac of the most indispensable of modern appliances in a sentence comparable to the very finest in Tacitus :—

Thos. T. Sorrow,
Inventor.
Bert. M. Padland,
Proprietor."

Difficulties are again smoothed over and the work goes forward. Nevertheless, in the end, Soames takes legal action against Bosinney, claiming a sum which has been incurred through extras. Soames wins his case; the powers of Property are victorious not only over art, but over nature as well, and the tale ends in a double tragedy.

In Anstey's amusing "The Brass Bottle" we get the wonderful adventures of Horace Ventimore, a talented young architect "with ideals and ambitions which might under better conditions have attained recognition and fulfilment before this." But "he was not quite energetic enough, besides being too proud to push himself into notice and hitherto he had met with persistent ill-luck." He shares offices with another architect, "a designer of atrocities," a good talker, and consequently very successful in obtaining work. At length with the help of a Jinnee, Horace Ventimore gets a client—an ideal client who wants a mansion built down in Hampshire. Horace gets to work. Some days pass, every hour of which was spent by him in the rapture of creation. "To every man with the soul of an artist in him there comes the time only too seldom in most cases—a revelation of latent powers that he had not dared to hope for. Now, with Ventimore, years of study and theorising which he had often been tempted to think wasted, began to bear golden fruit. He designed and drew with a rapidity and originality, a sense of perfect mastery of the various problems to be dealt with, and a delight in the working out of mass and detail, so intoxicating that he almost dreaded lest he should be the victim of some self-delusion." Thus the tale begins, and then goes from incident to incident, each marvellous, but yet with a sense of reality about them. It is one of the most popular of modern tales, and its success is as great whenever it is played on the stage.

Thomas Hardy's tale, "A Laodician," is one of the changing order in country mansions and manor-houses; its issue being not back to the original order, but towards the modern spirit. The end of the tale sounds this note: "'We'll build a new house beside the ruin, and show the modern spirit for evermore.'" Besides this it is a tale, in Hardy's own words, "for that large and happy section of the reading public which has not yet reached ripeness of years; those to whom marriage is the pilgrims' Eternal City, and not a milestone on the way." It is a tale about architects written by an architect. At the very beginning the attention of an architect is caught with this: The sketcher "took his measurements carefully, and as if he reverenced the old workers whose trick he was endeavouring to acquire six hundred years after the original performance had ceased and the performers passed into the unseen. By means of a strip of lead called a leaden tape, which he pressed around and into the fillets and hollows with his finger and thumb, he transferred the exact contour of each moulding to his drawing, that lay on a sketching stool a few feet distant; where were also a sketching block, a small tee-square, a bow-pencil and other mathematical instruments." Then we get a glimpse into the mind of the young architect, Somerset, and learn the phases of his past architectural beliefs, how that, in the end, bewildered on the question of style, he concluded that all styles were extinct and with them all architecture as a living art. "He was not old enough to know that ideal perfection was never achieved by Greek, Goth, or Hebrew Jew, and never would be . . . ."

Early in the tale Somerset meets a rival architect, the "spurious article," in the castle about to be restored.

"'Fine old screen, Sir,' said Mr. Havill, in a long drawn voice across the table when they were seated, pointing in the direction of the traceried oak division between the dining-hall and a vestibule at the end. 'As good a piece of fourteenth century work as you shall see in this part of the country.'

"'You mean fifteenth century, of course,' said Somerset."

Thus Havill goes on, time after time, making blunders talking of Perpendicular work with mouldings wonderfully undercut, and so on. Somerset is asked to restore the castle, but as Havill has been expecting the work, he proposes a competition between them, the two rival plans to be submitted to a committee appointed by the R.I.B.A. The client, the heroine of the tale, agrees, and allows Somerset to use a part of the castle as his studio, where he, from time to time explains much about mediæval architecture—explanations that are an essential part of the tale. The rival designs progress, and we are told in what lay the originality of the conception of the winning idea. The weaving of the plot is very intricate, and it is impossible to follow it here; but through it all runs much of interest to the architect. There are three "crack draughtsmen" who turn up to give assistance whenever wanted. One wonders what they do between-times. Later in the tale we find them travelling on the Continent, partly at Somerset's expense. We get an ideal client, an ideal architect with ideal assistants, together with a villainous architect as a rival. As regards the carrying out of the work we get this interesting bit :—

"At his suggestion Paula had agreed to have the work executed as such were carried out in old times before the advent of contractors. Each trade required in the building was to be represented by a master-tradesman of that denomination, who should stand responsible for his own section of labour, and for no other, Somerset himself, as chief technicist, working out his designs on the spot. By this means the thoroughness of the workmanship would be greatly increased in comparison with the modern arrangement whereby a nominal builder, seldom present, who can certainly know no more than one trade intimately and well, and who often does not know that, undertakes the whole."

It is a long tale with all the elements of romantic fiction: mysterious men, journeys abroad and all the old obstacles to the course of that true love, which "never did run smooth."

According to these examples of fiction, one of the chief things about the architectural profession as it appears to the public (for fiction reflects to a certain extent public opinion) is that the spurious article, as he is termed in Hardy's book, is as common as the genuine; not only that, he is infinitely more successful. Pecksniff was not discomforted until he was an old man with grown-up daughters; Littlemaster was apparently very flourishing; Havill, and his colleague in Anstey's book seem, too, to have been prosperous. In the fiction dealing with the other professions and artistic callings we rarely find the spurious article, and the reason is obvious. Would a Registration Bill do anything to keep Pecksniff, Havill, Littlemaster and Co. out of the profession? Perhaps, but so long as the man of property is uneducated and allowed to call for any tune he likes, we shall have them with us.

London Street Architecture Medal

The jury appointed by the Royal Institute of British Architects to award a medal to the architect who has designed the best street frontage completed during the year 1922 within a radius of four miles from Charing Cross has just completed its task.

After careful examination of drawings and photographs of all the buildings which were nominated for the honour, and after a tour of inspection of the actual buildings, the jury has given its award in favour of "Wolseley House," 157–160 Piccadilly, designed by Mr. W. Curtis Green, F.R.I.B.A., of 5 Pickering Place, St. James's Street, S.W.

The jury consists of:—The Earl of Crawford and Balcarres, Hon. F.R.I.B.A. (chairman); Sir Aston Webb, President of the Royal Academy; Mr. Paul Waterhouse, President of the Royal Institute of British Architects; Sir Reginald Blomfield, R.A., Past-President of the Royal Institute of British Architects; Mr. E. Guy Dawber, F.R.I.B.A.

Mr. F. W. Rees is preparing a scheme for the erection of about 128 houses on the Highfields Estate at Burgess Hill.

Notes from Portugal.

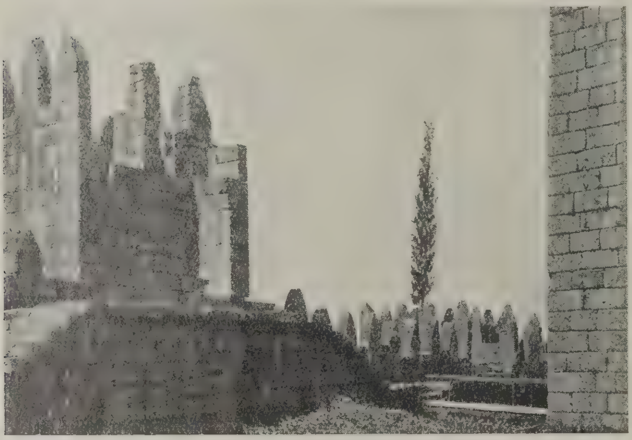
By G. A. T. Middleton.

No. XVIII.—Guimaraẽs.

The oldest buildings in Portugal are the little churches, to be found mostly in the north, which are contemporaneous with, and very similar to, the Saxon churches of England; and the most perfect of them is that at Guimaraẽs. It stands amidst a few trees in an open space near the castle, a small, low, rectangular building, with a rectangular chancel, exactly in accord with the English plan. Similarly, too, there is no east window, and such windows as there are are little more than arrow slits externally, with bevelled jambs inside and having small semicircular heads, not arched, but shaped out of a single lintel stone.

So much can be said with certainty, and though the restorer and repairer has been at work, there is reasonable evidence that the wall between nave and chancel, which does not bond with the external walls and is probably a modern rebuilding, together with the chancel arch and the simple impost from which it springs, are all correct reproductions of the original work, fragments of which have been preserved. The spirit of it all is the "Saxon" spirit.

The roof, of course, is not original, but the coupled tie-beams are of some interest; and so is the extremely simple confessional screen, constructed as a movable piece of furniture. The bare nave, devoid even of chairs, and the iron railings to the angles are significant of the degradation, not to say desecration, suffered of late years, though the chancel has been spared and is carefully looked after.

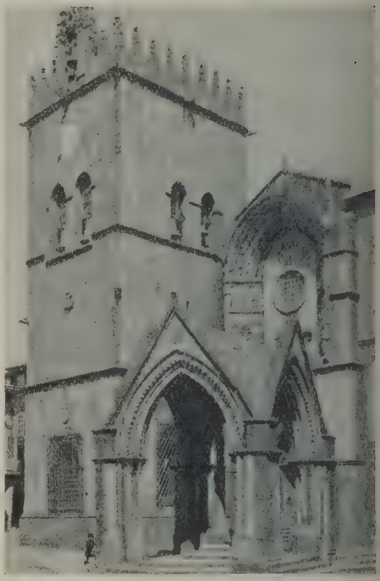


BASTION ON CASTLE WALL, GUIMARAẼS.

The castle, close by, is almost as interesting as the church, and is likewise of a very simple and early type. Built on the top of a granite rock, it consists of a square granite tower surrounded by a battlemented wall with a bastion raised in the middle of one of the sides. The bastion space is occupied entirely by the archers' platform and the stone stairs leading to it, while the only means of admission to the tower was along a drawbridge in the same position as the present gangway across the narrow court—now covered with a large vine trained on wires like the hops in Kent.

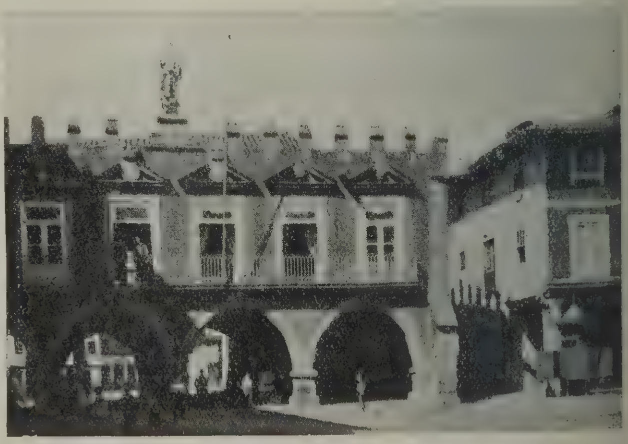
The cathedral—the town was said to possess a bishop without a see and a bridge without a river—is somewhat of an archæological puzzle in its present dilapidated state, but the picturesque beauty of the group formed by its west front and tower with the market cross, all set in a square of old houses, is undeniable. The west window of the cathedral, the lower windows of the tower (cross-barred externally to protect them) and the tower angles and parapet are all rich with Manoëlian carving, but the structure itself may well be of earlier date. As for the cross and its canopy, both of great beauty (especially the cross), the restorer may have been at work, though not quite recently. The presence of the dog-tooth ornament is otherwise incomprehensible, and of the four gables which hardly correspond with the stone slab roofing of the vault.

Amongst the houses surrounding the cathedral, mostly with timber and plaster upper storeys carried on granite columns so as to project over the footpaths, the old Market Hall is prominent, with its double row of wide pointed arches below, forming passage ways, even for carts, between one old square and another, while the whole space above is occupied by one big room having six French windows opening on to balconies on either side, Renaissance in style, and in complete vertical disagreement with the arcade below. The pediments of the windows are broken for the display of coats of arms, and a fine allegorical sculptured figure representing the fruits of agriculture is placed centrally over the whole.



CATHEDRAL TOWER AND MARKET CROSS, GUIMARAẼS.

In the days of Rococo, architectural and armorial sculpture must have flourished exceedingly in Portugal, and most especially in these northern towns. Examples are to be found everywhere. They are generally inaccessible to the camera without distortion, but in Guimaraẽs one over-door was found which could be photographed from a raised footpath across a narrow street, by full use of the rising front and swing back, without resort to scaffolding. It is a fine example, too, though no finer than many others, and occurs in the street wall of a courtyard, round the other three sides of which a great house is built. Weeds are growing now in soil caught in hollows of the carving, and the whole place, like much else in the country, sadly needs the care of a wealthy owner—or removal to a great museum, where it would be properly looked after and preserved. This would be no desecration, for if it be left neglected for long as it is at present it must inevitably decay and disappear.



MARKET HALL, GUIMARAẼS.

Correspondence.

Bricks.

To the Editor of The Architect

Sir,—A recent paragraph in your journal stated that your office would be pleased to receive the names of any manufacturers of common bricks who could give immediate delivery. May I point out to you that Messrs. Eastwoods, Ltd., of 47 Belvedere Road, S.E.1, can supply your enquirers with all the bricks they want from stock, and I shall be obliged if you will put their name before them and ask them to send their enquiries along.

Should they be wanting any hand-made facers, Messrs. The Maidenhead Brick and Tile Co., Ltd., Pinkney's Green, Maidenhead, will be pleased to supply them.—Yours, etc.,

Horace Boot.

Westminster Chambers, 7 Victoria Street, S.W.1;
and at Newcastle-on-Tyne.

"The Housing Tragedy."

To the Editor of The Architect.

Sir,—It is gratifying to read in your issue of April 13 the very strong plea made by Mr. E. G. Trobridge for the preservation of houses from damp and consequent decay.

It is, of course, a matter of common knowledge that a damp house is unhealthy, and also that such dampness induces decay by rot, rust and frost, and therefore is destructive to the building itself. It is unfortunate, however, that this knowledge is so often allowed to lie dormant, and is not carried to the logical conclusions which your contributor expresses so forcibly.

Dryness in a house is one of the first essentials to health, but too often the reverse condition is tolerated, either because the disastrous results are not fully realised, or because it is thought that the remedy of such a condition is prohibitive in cost.

Our interest in the matter lies particularly in the fact that we are the manufacturers of "Pudlo" brand cement waterproofing powder, which finds its principal employment for the purposes under review, but the professional standing of your contributor ensures that he has no *ex parte* interest, and his views must, therefore, carry the more weight.

It is a source of satisfaction to us that the use of "Pudlo" has made possible the cure of dampness in many old and decayed buildings whose moderate values would have prohibited their treatment by other methods which are expensive, but not more effective.

Our waterproofing powder has long since been recognised as a standard structural material, and is regularly used by architects and builders in all situations where dampness has to be overcome. It is not so generally known, however, that we maintain an advisory staff for the preparation of technical specifications, and we should be happy to collaborate in the treatment of any waterproofing work which your readers may have under consideration.

Yours faithfully,

Kerner-Greenwood & Co., Ltd.

The Whitelead Controversy.

To the Editor of The Architect.

Sir,—In your article you say the Committees which reported in 1915 and 1920 respectively "recommended the prohibition of the use of whitelead for paint materials."

"The Times" of April 5 stated that "the conclusion of the departmental Committee of the Board of Trade on Industrial Paints not to support the entire prohibition of lead paints in the painting of buildings—which was recommended by the departmental Committees that sat in 1911—appears to have given general satisfaction." It would doubtless surprise you, Mr. Editor, to learn that no such recommendation was ever made by those departmental Committees nor by either of them. This appears but another example of the false statements that are frequently made by parties who are interested in the sale of the poisonous whitelead.

I gave evidence before both Committees, and I personally urged them to restrict the use of lead compounds in paints to five per cent. of the dry pigment. This advice was also tendered, quite apart from myself, by several others, and it was incorporated in their final decision, subject to reasonable exemptions, and to come into force only at the expiration of three years from November, 1914. The Committee upon the dangers attending the use of lead products in painting coaches, motors, etc., came to the same decision at the same time, but the draft of their recommendations was not signed until January, 1920, also with exemptions. You can read both recommendations in reports Cd. 7,882 and Cmd. 630 respectively. These documents are published by H.M. Stationery Office, at prices fourpence and sixpence respectively. The Minutes of Evidence occupies, with index, 804 pages, price 9s., Cmd. 632. The Appendices form a separate report in 73 pages, Num. Cmd. 631, price 1s., date 1920.

The proposed enforcement of "wet rubbing down of old painted surfaces or of partly finished paint work" will certainly never lessen lead poisoning, for the simple reason that the drippings soon dry on the floor and, disturbed by traffic, are inhaled as dusty lead oleate, deadly racial poison. Moreover, regulations enforceable in a factory are a dead letter amongst house painters working in houses.

As regards efficient substitutes, experiences produce opposite opinions.

I am confident that any legislation that has the support of the makers of whitelead will inevitably be framed in their own interest, but not in that of the sufferers from plumbism. Also, were I to indicate the only real efficient pigment in oil which supersedes whitelead and redlead, both for a paint and for a jointing cement, I should at once lay myself open to their usual charge of interested motive. I may, however, be excused if I point out that on page 14 of report Cmd. 631 a table is printed —Table B—entitled: "Table showing: (1) For painters the excess of deaths per hundred due to certain diseases; (2) the median age at death for certain classes." This table compares the case of "All males" with "plumber, painter, glazier class" and with "painter" only. The evidence is overwhelming that the excess of deaths in every hundred ascribed to the influence of lead is 12·01 and 13·25 respectively. It also proved conclusively that in these trades lives are, on the average, shortened by about eight years.

When one reads the pleading of Lord Askwith in "The Times" of April 4 as to the Convention of the International Labour Office at Geneva proposing to prohibit (as from November, 1927) the use of whitelead and sulphate of lead for interiors, with exceptions, that such prohibition would involve extra expense in painting, one would like to know if his Lordship can possibly be aware that 70 out of every 100 house painters show evidence of chronic plumbism, and that their offspring not only are frequently liable to mental defect, but are less than half their ancestral average. These facts were proven in America by a Government medical enquiry and examination of 100 painters, members of a trade union in Chicago. Doctors rarely enter "Lead poisoning" on the death certificate of a painter, but they certify death as due to Bright's disease, phth sis; other diseases, such as encephalopathy, cerebral hæmorrhage, paralysis, etc.

Pneumonia, bronchitis, colic, heart failure, aneurism, hernia, are all diseases to which house painters are particularly liable; but, if either be the cause of death, one fears that the primary cause, lead poisoning, is not often reported. Hence the tables printed by the Registrar-General do not compare with those prepared by the painters' trade unions. Insurance companies who pay out compensation under the Factory Acts have had reason enough to know how dangerous is this trade. Why should mere trade profits count for more than human life and sufferings?

The question has certainly not by any means been settled.—Yours, etc.,

Charles A. Line.

"Byelaws" and "The Visual Angle."

To the Editor of The Architect.

Sir,—(*a*) With reference to a "Leeds Architect's" letter in the current issue of your paper, the Local Authority is clearly right in its interpretation of Sect. 43 of the Town Planning Act, 1909, so far as the proposed alterations are concerned. Front-to-flank ventilation is a different matter to direct through-ventilation.

Were your correspondent to treat the two premises as both fronting to Brookdale Grove (that is, by transposing one of the living-kitchens and the shop at present fronting on Malvern Road), the required through-ventilation would be obtained. There would then be one shop entered from Brookdale Grove, with its living-kitchen and garden behind, and the other shop at the corner, with its living-kitchen and yard in the rear.

(*b*) Referring now to Mr. Henderson's letter about the visual angle in perspective drawing, I have never yet understood that the angle of 60° is the maximum angle permissible; I have always taken it as the minimum. In fact, I was taught that for comfortable vision the spectator should be distant *at least* twice the measure of the extreme width of the object to form the picture. One may be as much more distant as personal inclination inclines; that is a matter of option.—Yours, etc.,

Percy L. Marks.

10, Matheson Road, West Kensington, W.14.

Building Trade Dispute.—Now is the Time to Build.

To the Editor of The Architect.

Sir,—Is there a phase of the recent settlement in the above matter which is in danger of being overlooked?

The general public has been good enough to interest itself in the dispute which recently divided the two parties mainly concerned, viz.—the employers and the operatives. No doubt it was justified in this. But the general public is proverbially short-minded. And in this present instance it may too readily forget that settlements of this nature, undertaken on behalf of the whole community, involve sacrifice.

The welfare of any industry affects the welfare of the community; and to that extent everyone is involved; and a stoppage especially at the present, in building operations, could not fail to be utterly disastrous.

Such a realisation it was that enabled a settlement to be come to at the eleventh hour of the dispute; and the general public was no doubt exceedingly relieved thereat.

But what may not be so fully realised is the fact that this settlement was only effected by sacrifices on the part of both parties mainly concerned. Both the employers and the operatives have made considerable sacrifices in order to avoid a stoppage and particularly with a view of enabling the community's great need for buildings to be supplied.

Now that these sacrifices have been made is there not something due from that third party, the general public? Or is the investor still to continue to wait for yet another reduction in costs before he sets free the building work which he has in contemplation?—Yours, etc.,

H. Bryant Newbold,
Editorial and Organising Secretary.
National Federation of Building Trades
Employers of Great Britain and Ireland.

48 Bedford Square, W.C.1.
April 17, 1923.

Water Fittings.

To the Editor of The Architect.

Sir,—The Standing Committee on Water Regulations of this Association have had their attention called to references which have appeared in the Press alleging that this Association have prepared specifications for water fittings which will entail unnecessary expense to the public.

These allegations are quite erroneous and are evidently based upon misapprehension.

A draft Model Code of Bye-laws and Regulations for the Prevention of Waste, Contamination, or Misuse of Water, including Specifications of Standard Water Pipes and Fittings, is now before the Ministry of Health and awaits their sanction, so that the Model Bye-laws may be available for adoption by local authorities, as are various other Model Bye-laws relating to buildings, slaughter-houses, markets and many other matters.

The Legislature has imposed upon Water Undertakings the power and duty of making bye-laws and regulations for the prevention of waste, undue consumptions, misuse or contamination of water; and this is all that the Standing Committee of the British Waterworks Association are seeking to secure.

The Association do not imagine that there can be any valid objection to these objects which were shewn in so many instances to be of supreme importance during the drought of 1921.

Apart from faulty distribution by leaky mains (which is, of course, the direct concern of the water undertakings), the principal cause of waste of water is the existence of faulty fittings in houses and buildings; and the Association are only attempting to lay down such minimum requirements in regard to the manufacture of fittings as will ensure an efficient article at a minimum cost to the public, whilst preventing the necessity for constant repairs which are such a source of expense and annoyance to consumers.

It may be mentioned here that the revision of previously existing standard specifications of water fittings was undertaken by the Standing Committee in 1921 at the express instance of the Department of Building Materials Supply of the Ministry of Health, with the double object of excluding badly made fittings which are likely to cause waste, and of encouraging mass production to standard patterns so as to reduce the cost of efficient fittings to the public. It can be emphatically stated that taps and other fittings that comply with the specifications can be obtained at a considerably lower price than many imperfect fittings such as ought not to be allowed. There is no desire to interfere with fittings in actual use, but merely to provide that fittings for new buildings or new fittings for replacing old fittings should be of a character to reduce waste to a minimum.

The public hardly realise the enormous volumes of water which are wasted by defective fittings, entailing loss to the public by depleting existing sources of supply, by involving unnecessary pumping and other charges and additional impounding reservoirs and other works. Thus both capital and maintenance expenditure is unnecessarily increased at a time when the financial resources of the country are least able to bear the burden.

The Standing Committee is composed of representatives of the British Waterworks Association, the Water Companies' Association, the Institution of Water Engineers, the Royal Institute of British Architects, the Worshipful Company of Plumbers, the Institute of Plumbers, and the Royal Sanitary Institute. It has done its best to meet criticism from every quarter by conference with manufacturers and others; and it is prepared to meet in conference representatives of property owners or other interests that may think themselves aggrieved. The Standing Committee feel convinced that any opposition offered to the Model Bye-laws must be founded upon complete misunderstanding of the objects they have in view.—Yours, faithfully,

G. P. Warner Terry.
Secretary.

British Waterworks Association (Incorporated),
Metropolitan Water Board Offices, New River Head,
173 Rosebery Avenue, E.C.
April 17, 1923.

Competition News.

The R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Tunbridge Wells Pavilion Competition are not in accordance with the regulations of the R.I.B.A. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition.

Messrs. J. Harper Bakes & Son, of Leeds, are the architects for a residence and garage proposed to be erected in Harrogate Road, Eccleshill.

Messrs. Braithwaite & Jackman, architects, Leeds, have prepared plans for the immediate rebuilding of the U.M. Church in Tempest Road, Leeds.

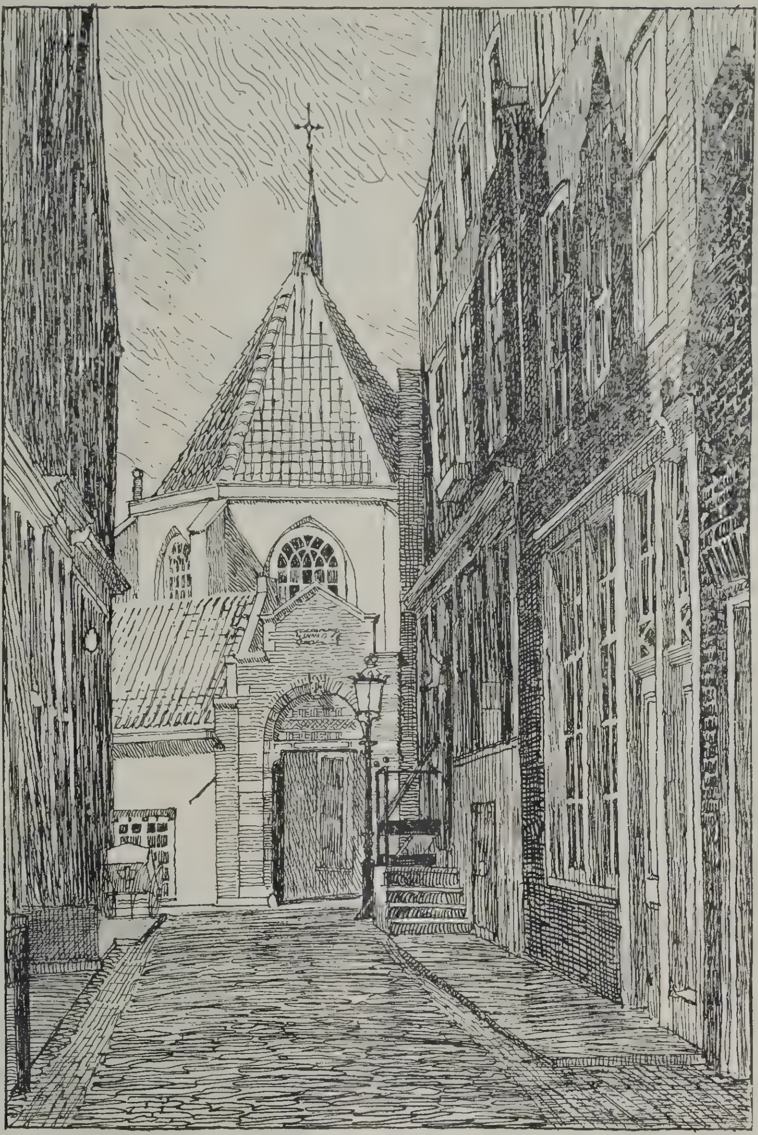
The Church Council at High Wycombe have received a report from Mr. W. A. Forsyth, F.R.I.B.A., on the proposed restoration of the tower of the parish church, known as the "Cathedral of Bucks." The architect suggests that £1,000 will be needed as a beginning. An appeal is to be made to the whole diocese of Oxford.

Speaking at Bradford last week, the Archdeacon of Bradford announced that plans had been prepared by Sir Charles Nicholson for a beautiful new cathedral for the city which would incorporate the present cathedral. The estimated cost of the new building was £70,000, a sum which the Archdeacon considered a mere trifle for a rich city like Bradford. He hoped the scheme would shortly begin.

The Melton Mowbray Urban District Council have passed a resolution authorising the construction of a reservoir of 1,000,000 gallons capacity and an engine and pump capable of pumping 10,000 gallons per hour. It is also proposed to construct a small high level reservoir and small pumping station to supply the higher portion of the district. The engineers of the scheme are Messrs. W. H. Radford & Son, of Nottingham, in conjunction with the council's surveyor, Mr. Jarvis.

The City and Suburban Housing Association (Glasgow) (Ltd.) are to erect 32 semi-detached houses of from three to six apartments at Berelands Road, Prestwick, at an estimated cost of £26,500. The scheme, the plans for which were passed last week by the Prestwick Dean of Guild Court, will involve the formation of several new streets. The association, it is stated, have also in view the erection of 150 houses of a similar type at St. Quivox Road, together with an electricity station to supply current to the association houses.

Glasgow Dean of Guild Court on the 12th inst. granted linings for the erection of buildings costing approximately £124,000. The petitions numbered about 80. There were, as usual, numerous applications for permission to erect garages. The buildings involving the largest expenditure which the Court sanctioned are an iron workers' shed at Linthouse shipyard for Alexander Stephen & Sons, Ltd., Govan, the estimated cost of which is £42,670, and baths and washhouse which the Corporation will erect at a cost of £42,000 for Pollokshaws district. The Corporation will incur an expenditure of £3,500 on pavilions.



OLD HOLLAND. By G. G. Wornum.

The English Parish Church.

At a recent meeting of the Royal Archæological Institute' held at the Society of Antiquaries, Burlington House, W., a most informative paper was read by Mr. Aymer Vallance, M.A., F.S.A., under the title of "The Tour of an Old Parish Church." Before dealing with the internal furniture Mr. Vallance practised the golden rule of regarding the church from the outside, and touched upon the churchyard with its lych-gate and preaching cross, and the yew trees which provided green sprigs for Palm Sunday.

If not the absolute, invariable rule, it was, he said, at any rate a matter of very great importance that the church should stand in such wise that there might be no structural obstacle to interfere with the course of the Sunday outdoor procession. Thus, when a college of priests was founded at the parish church of Cobham, in Kent, the licence from the patrons (the Prior and convent of St. Saviour's, Bermondsey), which is dated June 24, 1370, while empowering the Master and brethren of the college to erect on the south side of the churchyard a range of buildings, extending as long as the nave and chancel together, expressly stipulates that there must be left between the church on the one hand and the college buildings on the other space sufficient to admit of the parochial procession making the wonted circuit of the exterior of the church without let or hindrance. The parish church of Ewelme, Oxon, is another instance in point. Here is an almshouse founded by the Earl and Countess of Suffolk in 1437. The building, a quadrangle at a short distance beyond the west of the church, is connected with the latter by a covered way to shelter the old bedesfolk from the weather. On each side of this covered passage there opens out a doorway to enable the procession to make an uninterrupted circuit of the outside of the church. Where the sacred edifice abutted on to a highway a clear passage through or under some part of the former would be provided in order that the procession might fulfil its appointed course without having to leave consecrated ground. This feature is strikingly exemplified at Hythe, in Kent. In this case the east end of the church extends quite close to the eastern limit of the churchyard, which is here skirted by a public highway. The well-known sub-vault beneath the chancel, now stored with bones and in consequence popularly miscalled a crypt, is nothing more nor less than a procession passage, with a door at either end of it, north and south. The south door of this same church abutting similarly as it does on to the roadway, which runs parallel with the south side of the building, is pierced on either hand, east and west, by a procession doorway. In the same way, and for the same reason the north porch of the nave at Stratford St. Mary, Suffolk, was pierced with side doorways, which have now unhappily been falsified and filled with solid walling beneath and window tracery over by the misguided hand of some modern "restorer."

The most famous example of external consecration crosses is the set carved at Salisbury Cathedral, of which at least ten, if not all the twelve, remain. In church interiors it was more usual for consecration crosses to be painted on the walls. An instance, however, of a carved one slightly sunk in the face of a wall-shaft occurs in the south side of the chancel at Stoke D'Abernon, Surrey.

The provision of a porch was no arbitrary matter, for it had serious uses, such as for the first part of baptismal and of marriage services and churchings of women. At a Provincial Council of Scotland in 1225 it was decreed that any child baptised by a lay person would afterwards be brought to the door of the church, and there the priest was to supply what the lay ceremony had not supplied—viz., chrism, touching with saliva, ending with all the accustomed ceremonies at the font, except, of course, the actual hallowing with water. The porch was also a recognised place for teaching, for fulfilling certain solemn obligations—*e.g.*, payment of bequests, or for execution of deeds and other contracts. Until the end of the twelfth century it was also used for the trial of civil and criminal causes. Sometimes also it was used for holding inquests in cases of sudden or violent death.

In the course of his remarks on the subject of fonts, Mr. Vallance said that in the wall or in a pillar close to the font is sometimes to be found an aumbrey or niche in which possibly the chrism and the articles required in the ritual of baptism were kept permanently, or might be placed for convenience during the ceremony. A niche of this description remains in one of the western piers of the nave at Moulton, Lincolnshire, and another in a similar position at Great Malvern Priory Church, the nave of which served as the church of the parish previously to the Dissolution.

It does not appear likely that fixed wooden seats were ever provided in naves until the close of the thirteenth century. In some churches, however, a low bench of stone, now known as a "bench-table" would be built along the foot of the walls, or even sometimes round the base of the piers. Such bench-tables have often been ruthlessly swept away or, if suffered to continue standing, have been concealed by the pewing inserted at subsequent times. The earliest wooden fixed seats in England are believed to be those at Clapton-in-Gordando, Somerset; they are very rude and clumsy, and are attributed to the time of Edward I. (1272–1307).

To the question, "What was the most prominent object in a mediæval church before the Reformation?" the answer of nine men out of ten would be "the high altar." That idea, said Mr. Vallance, was absolutely mistaken. That which stood up conspicuous in every Christian church in the land was the great Rood, the emblem of redemption and of the compelling sovereignty of the Son of Man. It was one of the things required to be provided at the expense of the parish. Usually the rood was accompanied by figures of Mary and John—sometimes from the top of the screen or loft, sometimes on a separate beam above, and sometimes, more rarely, hanging from the roof.

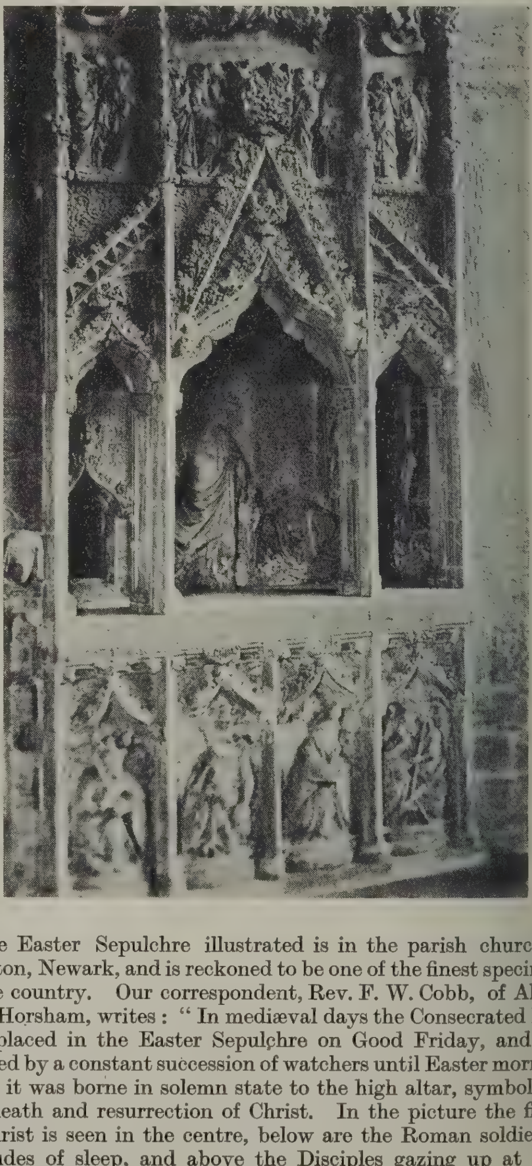
A vigorous attack was made by the lecturer on the hoary calumny that Misericords—incorrectly called misere seats—were intend to bring to the floor any hapless sleepy cleric who, while reciting office, might fall asleep and place his whole weight upon it. The nature of these hinged seats was fitly explained by their name "misericord"—*i.e.*, because they were provided out of compassion for human infirmity. The person who insists on maintaining that monks and clergy in the Middle Ages were all so puerile and irreverent as to arrange their seats in church with a view to playing jokes on one another must be consistent and believe the same of the Sovereign and the Knights of the Garter. For the quire of the Royal Collegiate Church of St. George of Windsor is fitted with misericords precisely in the same way as a monastic church, including the stall of the King himself. But no one could seriously imagine that the King would expose himself to such a humiliation in the presence of his specially-chosen knights, nor that he would have associated them with himself for the signal honour of belonging to the most noble Order of Christendom only to make them the laughing-stock of their fellows.

In the chancel wall near its west end, sometimes on the north, oftener on the south, or more rarely on both sides, occurs an opening which antiquaries now call by the non-committal name of "low side window." Various names have been applied to it and numerous explanations have been mooted at one time or another. Of these the lecturer dismissed at once the theory that it was meant for the use of lepers. And this for the simple reason that leprosy was so formidable and so dreaded a disease in the Middle Ages that all those who suffered from it were literally pariahs, and were obliged to keep away from every resort of their fellow-men. Some people think that the low side window was meant for ventilation; others suppose that it was a squint for recluses; others that it was meant for watching lights within or without the building; others that it was a squint for penitents and excommunicate persons denied the privilege of worshipping inside the church; others that it was made for confession. The truth is that no one explanation quite satisfactorily accounts for all the examples of low side windows known. They may not, indeed, have been designed all for one purpose; but whatever it was it must have been for something so obvious and familiar at the time that no writer has ever thought it worth while to record. Consequently when the use died out with the change of religion it became altogether forgotten. A regulation of the Constitution of Archbishop Peckham in 1281 says: "At the elevation let a bell be rung on one side, so that persons who have not leisure to be present in church at the celebration of Mass, wherever they happen to be, whether indoors or in the field, may bend their knees and thus obtain the indulgences granted by many bishops." The opinion of most competent authorities at the present day inclines in favour of the bell-ringing theory—which certainly seems to fit most cases better than any other.

In times past so important a place did the Lenten veil fulfil in mediæval ceremonial that many episcopal constitutions included it among the articles to be provided at the expense of the parishioners in every church. Archbishop Lanfranc, in 1072, decreed that after compline on the first Sunday in Lent the *cortina—i.e.*, curtain or veil—should be hung up between the quire and the altar; and that whenever during the season of Lent any high feast occurred the veil should be withdrawn at the Agnus Dei in the principal Mass of the day preceding the feast. On other days the veil was drawn aside only for the reading of the Gospel and until the *Orate Fratres*, and remained hanging continuously until the Wednesday in Holy Week. On that day, at the words, "The veil of the temple was rent in twain," the Lenten veil was taken down or, according to the rite of Exeter, was torn asunder by a deacon. Traces of this ancient usage, in the form of the rings or staples on which the veil was hung, yet survive scattered up and down the country.

Easter sepulchres, the lecturer explained, were distinct from the *repositorium* in use from Maundy Thursday to Good Friday. After the Mass of the Presanctified on Good Friday, the Crucifix that had been venerated at "the creeping of the cross"—or, as we now call it, "the adoration of the cross"—was reverently carried to a recess in the north wall of the chancel and deposited there together with a pyx containing a Host to be watched continuously with great devotion till Easter morning. Then it was brought to the high altar with festal solemnity. Sometimes, as at Heckington, Lincolnshire, or Hawton, Notts, a special stone structure, with appropriate sculptures, was provided for the purpose. Sometimes a tomb without an effigy was placed in such a position that it might serve in the same way. It was a privilege highly esteemed in the Middle Ages to have such a tomb to lie in beneath the Body of the Lord.

An Easter Sepulchre



The Easter Sepulchre illustrated is in the parish church of Hawton, Newark, and is reckoned to be one of the finest specimens in the country. Our correspondent, Rev. F. W. Cobb, of Alfold, near Horsham, writes: "In mediæval days the Consecrated Host was placed in the Easter Sepulchre on Good Friday, and was vigilled by a constant succession of watchers until Easter morning, when it was borne in solemn state to the high altar, symbolising the death and resurrection of Christ. In the picture the figure of Christ is seen in the centre, below are the Roman soldiers in attitudes of sleep, and above the Disciples gazing up at their ascending Master."

R.I.B.A. Charter—Proposed Revision.

A special general meeting of the R.I.B.A. will be held on Monday April 30, at 8 p.m., for the following purposes:—

To read the minutes of the special general meeting held on Monday, March 5, 1923; to consider the proposals of the Council for the revision of the Charter and Bye-Laws; to consider proposals for the adoption of an academic dress for members and licentiates of the Royal Institute of British Architects.

The proposals for the revision of the Charter and Bye-Laws are contained in the following report of the Charter and Bye-Laws Committee, which has been approved by the Council:—

REPORT OF THE CHARTER AND BYE-LAWS COMMITTEE.

GENTLEMEN,—We have the honour to report upon the reference to us of 3 July last "to consider the revision of the Charter and Bye-Laws."

We inserted a notice in the "Journal," asking for suggestions from members, we communicated with the Standing Committees, the Board of Architectural Education, and our Allied Societies, we have met on several occasions and have received many excellent suggestions.

We do not attempt to make any proposals in the form of exact alterations or amendments, but only in general terms, and if approved by the General Body of Members the clauses would be properly worded by solicitors and submitted to the Privy Council. We are advised that a Supplemental Charter should be applied for.

The idea of this report is to make suggestions which we trust are, in principle, non-contentious; it would be impossible to deal with every suggestion we have received at one general meeting, and we are considering various proposals made by the Allied Societies, etc., and negotiations may take some little time. The work of the Institute's solicitors will be lengthy and complicated, and we make the following proposals with a view to their being submitted to the General Body at an early date, so that the drafting of the proposed Charter and the revisions to Bye-Laws might be commenced without further delay.

With regard to both Charter and Bye-Laws, we suggest as follows:—

1. In future no change to be made in either Charter or Bye-Laws unless carried by a vote with a two-thirds majority at the first and also at the confirming meeting; for Charter matters the quorum to be 60, and for Bye-Law matters the quorum to be 40; a bare majority of those present at the meeting to have power to request the Council to take a poll of all the members in England, Scotland and Wales, and the result of the poll to be binding on the Institute; Associates to have the same voting powers as Fellows, both as regards Charter and Bye-Law matters.

2. The Institute to have power to hold property of an unlimited value, or if a limit should be necessary, then the highest figure obtainable should be inserted in our Charter.

3. Ladies are at present eligible for all grades of corporate membership. If this is not already clear in the existing Charters, it should be clearly expressed.

4. Provision to be made for the new class named Subscribers (non-professional); the subscription to be £1 1s. per annum; no affix to be used by the class referred to, who would be elected by the Council and remain as Subscribers at the Council's pleasure; Subscribers to be entitled to attend General Meetings, but not to vote; use the Library, and receive the Annual Report, but not the "Journal"; other terms to be settled by the solicitors; this proposal being in accordance with the resolution of the General Body (see "Journal" (R.I.B.A.) of March 5, 1921). Ladies to be eligible for election to this class.

5. The definition of a Fellow (Charter 1887, Clause 3) to be enlarged so as to allow the admission of men who are qualified to the satisfaction of the Council, as follows:—

(*a*) Associates in a position of responsibility for the design of architectural work, but not being in private practice.

(*b*) Licentiates over 60 years of age and approved by the Council for nomination.

6. A new non-corporate class of Students to be formed, to consist of those who have passed or received exemption from the Intermediate Examination. The subscription to be 10s. 6d. per annum, or £1 1s. per annum if the "Journal" be supplied. Students to be entitled to attend General Meetings but not to vote, and to use the Library.

7 (A). Any Art or Craft Society may be, at the discretion of the Council, admitted to association, subject to such regulations, limitations and subscriptions to the Institute as may be from time to time prescribed by the Council of the Royal Institute. The members of such societies to have an annual notice of meetings of the R.I.B.A., and to be allowed to attend General Meetings, but not to vote, and take part in the discussions, but this privilege is not to apply to any meeting when the business of the R.I.B.A. is discussed, except by permission of the President of the R.I.B.A. The R.I.B.A. may from time to time hold exhibitions of the Arts and Crafts in connection with these societies, the conditions and terms being settled by the Council of the R.I.B.A. Bye-Laws 79 and 80 to apply. No member of such Arts and Crafts Society to use any affix referring to the R.I.B.A. unless already a member thereof.

7. Power to be given to admit as Hon. Associates any people who, by reason of their eminence or interest in architecture, the Council consider eligible for that honour.

8. With regard to Clause 29 (Charter of 1887), it should be made clear that Hon. Associates should have no power to vote on Charter or Bye-Law matters.

9. With regard to Clause 35 and elsewhere the Solicitors to decide if any alteration be necessary with regard to Ireland.

Charter of 1909, *Clause* 2.—The word "eminent" to be inserted before the word "architect" in line 11.

The following suggestions are made with regard to Bye-Laws: One form of spelling should be adopted.

Bye-Law No. 3.—We are of opinion that Associates elected after this date should, after a period of not less than seven years' private practice, proceed, if eligible, and subject to the approval of the Council, to nomination for the Fellowship after reaching the age of 50, or if they prefer to remain Associates, their subscription should be increased to that of the Fellows, provided such Associates be in private practice.

Bye-Law No. 7.—We are of opinion that the Licentiate Class should not be re-opened.

Bye-Law 12.—The second paragraph to be amended so as to provide for the election of such candidates by a four-fifths majority of those present and voting.

Bye-Law No. 23.—We are of opinion that this Bye-Law should be altered to include offences not technically felonies; this matter to be settled by the Solicitors.

Bye-Law No. 24 deals with the charges against Members. We are of opinion this should be altered so that the conditions under which a charge can be made should be as wide as possible, the Council should have power to initiate or investigate a charge without previous receipt of a written statement from a member, the time limit for suspension should be omitted, and that the question of the publication of a suspension should be referred to solicitors with a request that they should endeavour to find words which would enable the Council to make such publication without danger of an action for libel.

Bye-Law No. 29.—We are of opinion that there should be one Hon. Secretary of the Institute, although Clause 11 of the Charter of 1887 provides for "one or more Honorary Secretaries."

Bye-Law No. 32.—We are of opinion a list of attendances of members of the Council and Standing Committees should be sent to members with the Nomination Lists for the annual election, any special circumstances which may have prevented a member from attending to be noted at the request of the member in question.

Bye-Law No. 33.—We suggest that Bye-Law 33 should be omitted and the following Bye-Law substituted:—

"No ordinary member of Council shall be eligible for election for more than six consecutive years in that class. No Associate member of Council shall be eligible for election for more than six consecutive years in that class."

Bye-Law No. 35.—We suggest that the Extraordinary Meeting must be called within seven days.

Bye-Law No. 37.—After "any notice" add the words "or other document."

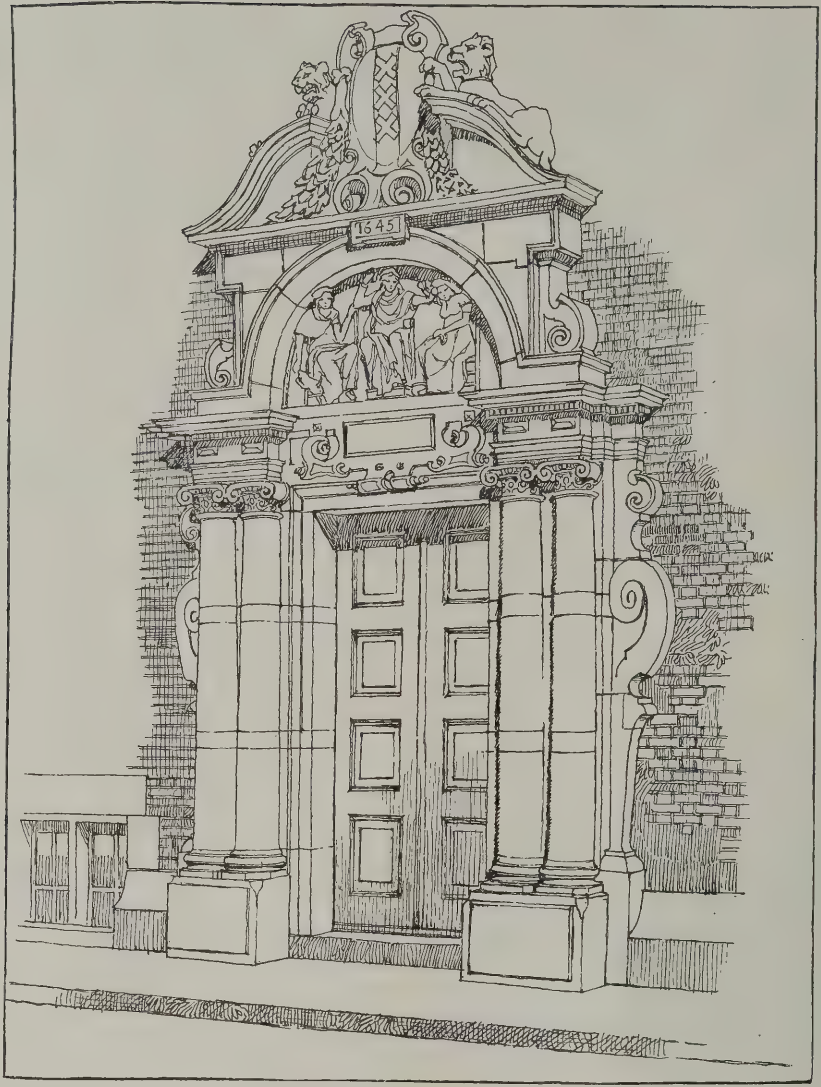
Bye-Law No. 38.—The President has power "to issue any notice he may think fit" and at present he must report his action "at the next meeting" of the Council: that might be impossible, and we suggest the omission of the words "at the next meeting" and the clause would end "provided that he report his action to the Council."

Bye-Law No. 49.—We suggest this should read "There shall be Standing Committees for the promotion of . . . profession of Architecture and they shall be appointed annually."

Bye-Law No. 51.—The third line reads "branches of Architecture with which they are respectively entrusted," and we suggest it should read "branches of Architecture for which they are respectively appointed."

Bye-Law No. 54.—We are of opinion that it should be made clear that a Standing Committee may initiate action upon matters germane to their own functions; this not to mean taking any public action, but we are of opinion that in cases of emergency, with the sanction of the President, or, in his absence, of the Officers of the Council, Standing Committees should have power to take public action.

Bye-Law No. 60 deals with business meetings, and we suggest adding at the end of the clause words to the effect that "the Council may at any time have power to call a Special Business Meeting for any specific purpose, and they shall at any time



OLD HOLLAND. By G. G. Wornum.

during the Session be bound to do so on the written requisition of fifteen subscribing members which shall specify the nature of the business to be transacted, and no other business not specified on the agenda paper shall be discussed at such meeting. A Special Business Meeting shall be held within three weeks after the delivery of such requisition to the Secretary, and at least seven days' previous notice thereof shall be sent to every Member entitled to be present. The notice shall state the business to be discussed." With regard to the quorum, it must be "Members," no distinction between Fellows and Associates.

In line 5 it is stated that "any question relating to the property or the management of the Royal Institute or to any professional question may be discussed"; this should be enlarged to include any questions as to Charter or Bye-laws, and every domestic matter concerning the Institute.

It will be noticed that matter from Clause 64 has been added to Clause No. 60; add at the end of Clause 60 "Subject to the discretion of the Chairman, every speech delivered at any Business Meeting shall be published in the 'Journal' at the earliest possible date after the meeting."

Bye-Law No. 64.—Insert "any" for "a" in the second line, and after "specific purpose" insert "or to discuss any questions relating to the property or management of the Royal Institute or any professional question," etc., etc., all as suggested by Bye-law No. 60; and a note should be inserted pointing out that the proceedings called under Bye-law 60 shall not be communicated to the Public Press without the consent of the Chairman, and that the meeting shall be private, but that if a meeting be called under Bye-law 64 it would not be private, and the Press might be present.

Under Bye-law No. 66 the quorum of "forty Fellows" should read "forty Members."

In paragraphs 2, 3 and 4 of this Bye-law, omit the words "having a right to vote."

If in the opinion of the Chairman it is desirable to divide on any question, provision to be made for the appointment of tellers and for divisions to be taken.

Bye-Law No. 77.—Omit the words "in the United Kingdom, in India, or in any Dominion, Colony or Dependency of the United Kingdom," and after the words "consisting in whole or in part of professional members" add the words "being British subjects."

With regard to the Forms of Declaration, it should be stated that each Fellow, Associate, Hon. Associate or Licentiate should agree to accept the Council's decision on any matter and take no legal action against them.

Signed on behalf of the Charter and Bye-laws Committee.

Sydney Perks, *Chairman.*

Who's Who in Architecture.

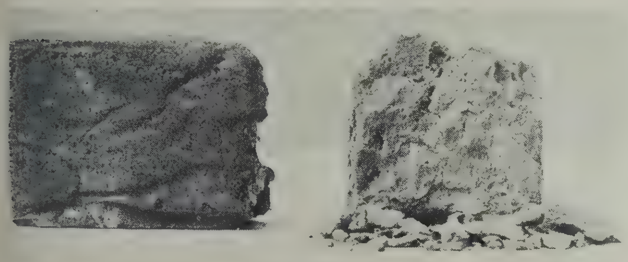
Mr. F. Chatterton, the Editor of "Who's Who in Architecture, 1923," appeals to the profession to assist him by filling in and sending in the forms which have been distributed in order that the work may be made as representative as possible of the whole profession. Those who have lost or mislaid these forms are requested to write to Mr. Chatterton at 27-29 Tothill Street, Westminster, or to telephone Victoria 6936, when fresh forms will be despatched to them. We think that as a matter of courtesy our colleagues should do this for one who has undertaken a heavy task which will be of some use to the profession as a whole. It should be pointed out that those who do so are not in any way committed to the purchase of the work when issued, also that those who do not cannot afterwards complain at the omission of notice of their names. Preparation for a first issue in a work of this kind is a laborious task, keeping it up to date subsequently a much lighter and easier one.

A Tribute to Terra-Cotta.

If we are to believe Mr. H. G. Wells's latest dip into the future, a thousand or so years hence mankind will no longer be cooped up in cities, but will dwell, scattered about the countryside, in little clusters of houses as delicately tinted as the flowers in May.

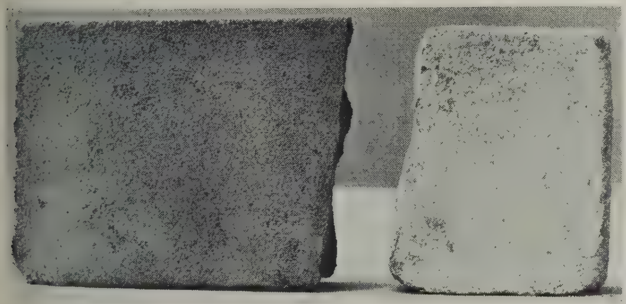
Before this Utopian era dawns upon the world many centuries of life in great cities must pass; and the tasks of designing and building must still be carried on under the conditions and limitations imposed by the city of to-day.

How irritating and confining these conditions can be is common knowledge. With the growth of the city in the past half-century they have become sensibly more acute. To-day no architect can look for such an opportunity as was granted to the Woods at Bath in the eighteenth century, of rebuilding and remodelling a town on a spacious plan, with practically unlimited powers of working along lines in harmony with the natural beauties of the site.



FLAME AND WATER TEST ON CONCRETE.
Before Test. After Test.

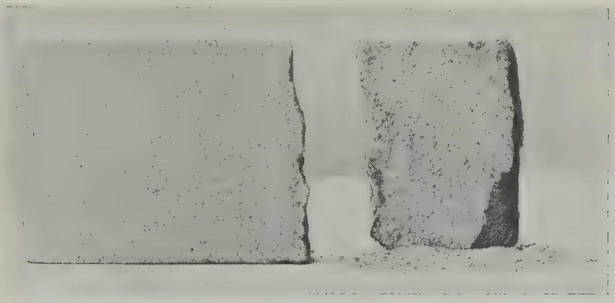
The most formidable of present-day architectural problems in town life is the presence in the atmosphere of elements singularly destructive to building materials. Myriads of chimneys, domestic and industrial, are continuously vomiting tons of soot and grime containing corrosive agents that eat into stone and marble and brick. Aided by the moisture always present in our island climate, these agents easily gain a footing upon the surfaces of the city building and pursue at their ease their devastating labours. The extent of the mischief thus wrought is epitomised in Sir William Richmond's oft-quoted statement that Westminster Abbey has suffered more rapid decay in the last hundred years owing to the increase of sulphurous gases in London air than in all the previous centuries of its existence. Indeed, it is becoming a rarity to find an historic building in the Metropolis without the disfiguring scaffold poles and stagings that indicate expensive efforts to repair the inroads of the atmosphere.



FLAME AND WATER TEST ON PORTLAND STONE.
Before Test. After Test.

The architect, confronted with this increasing corrosion, is driven to look around for some material that by its nature is fortified against the onslaughts of the smoke fiend. Portland stone yields readily to the ravages of the biting air-acids; marble disintegrates before it has had the time to get case-hardened; brick is rapidly befouled by the sulphurous gases. Where, then, can architect and builder look for a material that will baffle the assaults of the foul fiends that lurk in the atmosphere of the city?

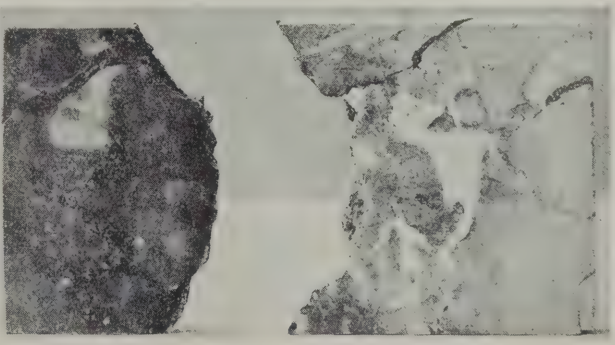
The most durable building material known is terra-cotta. Baked clay bricks dug out of the ruins of cities three thousand years old retain their surface unimpaired by the passage of centuries. Protected by a fine glaze without gloss or sheen, terra-cotta can face the smokiest atmosphere unperturbed by the acid test in the air of our manufacturing towns. It cannot, of course, repel the veil of grime with which this air inevitably clothes all surfaces it touches. But as in the case of the human beings who reside therein, a simple application of soap and water will immediately cleanse its face and restore its pristine freshness.



FLAME AND WATER TEST ON BATH STONE.
Before Test. After Test.

The impermeability of terra-cotta buildings exposed to the dingiest of atmospheres may be illustrated by examples from most of our large centres. In London, besides the Natural History Museum, erected many years ago, the most striking recent specimens are the Savoy Hotel, the Regent Palace Hotel, and the Hotel Russell. In Manchester a whole district of buildings in this material is locally known as the terra-cotta line. In addition, the city Fire Station and the Midland Hotel provide admirable examples of the architectural potentialities of this medium.

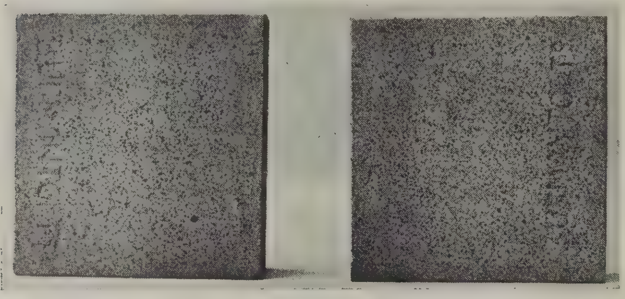
Another enemy with which the city builder must reckon is the risk of fire. Here, again, terra-cotta can give a remarkably good account of itself in comparison with its rivals. Having been carried in the process of manufacture to a temperature exceeding 2,000 degrees Fahrenheit, it comes through a conflagration as triumphantly as the three Hebrew youths in Nebuchadnezzar's burning fiery furnace. This fire-resisting quality has particularly commended terra-cotta to the American architects who remember that in the great fires in Baltimore, Buffalo, and San Francisco terra-cotta buildings escaped with far less damage than those composed of other constructional materials. Recent experiments on building materials subjected to a flame and water test have triumphantly established the superiority of terra-cotta. The accompanying photographs depict in striking contrast the result of the experiments in Bath stone, Portland stone, marble, concrete and terra-cotta.



FLAME AND WATER TEST ON ITALIAN MARBLE.
Before Test. After Test.

Apart from increased security against conflagration, terra-cotta offers several other points of superiority as a building material. Not the least important is its light weight, which not only makes it economical in transport and handling, but permits of its use in lofty erections where stone would require unduly massive construction. A feature which also commends terra-cotta to the builder is its adaptability. It can be used either as a constructional material pure and simple, bonded in the same way as masonry, or as a facing for buildings in steelwork or concrete.

From the æsthetic point of view the advantages of terra-cotta have long been admitted. In the Renaissance period Italian architects made its decorative possibilities familiar in nearly every country in Europe. Most of the finest Tudor buildings extant in this country—such as Hampton Court, Sutton Place, near Guildford, Layer Marney Hall, in Essex, and East Barsham Manor House, in Norfolk—are embellished with terra-cotta adornment, bearing the mark of the handiwork of Trevisano, the Italian architect of Henry VIII. The plastic nature of the clay permits the modeller to give it many soft artistic effects which are impossible in stone. It is particularly suited to repetition work, which can be carried out at infinitely less cost in terra-cotta than in stone. Moreover, as the examples cited above prove, the lines impressed upon the material by the modeller are retained for all time, whereas stone rapidly crumbles and loses its sharpness of outline.


FLAME AND WATER TEST ON TERRA-COTTA.
Before Test. After Test.

In closing this review of the advantages and potentialities of terra-cotta as a building material, reference must be made to the wide range of colour effects which its use offers to the architect. A large variety of tints is possible in this material, from a beautiful ivory white through all gradations of yellow and buff to burnt sienna, blues and greens. All these can be obtained from different kinds of clay and their combinations and by different methods of firing. A scheme of colour decided upon, the architect's idea can be realised, and he will have the satisfaction of knowing that, while stone and brick darken and marble decays, his terra-cotta front will stand the tests of time and weather and smoke practically unaltered.

A. P. G.

Forthcoming Events.

Friday, April 20.—Town Planning Institute. Meeting at 92 Victoria Street, Westminster, S.W. Paper by Mr. Thomas Adams, F.S.I., entitled "Region of New York City." 6 p.m.

Saturday, April 21.—Royal Institute of British Architects. Visit to Messrs. Crittall's Metal Works. To assemble at 9 Conduit Street, W. 2.30 p.m.

London Society. Walk Round the Old Roman Wall of London. To assemble at Post Office Yard, Giltspur Street, E.C. 2.30 p.m.

Monday, April 23.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Paper by Mr. William G. Newton, M.C., M.A., entitled "Theories Classical and Romantic." 8 p.m.

Wednesday, April 25.—Society of Architects. Annual Dinner at the Princes Restaurant, Piccadilly. 6.30 p.m.

Friday, April 27.—London Society. Visit to Westminster Abbey. 2.30 p.m.

Society of Architects' Scholarships.

The Society of Architects' Scholarship for the study of modern architecture abroad will be awarded for the first time this year, and will be tenable in the United States of America. The scholarship is to the value of three hundred pounds, and the winner will be required to spend a period of not less than six and not more than twelve months in America, and to present upon his return a report which, it is hoped, will form an important contribution to contemporary architectural literature. The Society of Architects will have the sole right to publish the report, and will award a certificate to the author in the event of the report being satisfactory to the Council. Entrance is open, without fee, to any British subject between the ages of twenty-five and forty years. Messrs. H. V. Lanchester, F.R.I.B.A., Arthur J. Davis, F.R.I.B.A., L. Sylvester Sullivan, A.R.I.B.A., Lieut.-Col. H. P. L. Cart de Lafontaine and Howard M. Robertson, have been appointed to act upon the jury who will select the holder for the present year. It is anticipated that this scholarship will before long yield results of considerable value, and that it will come to be looked upon as one of the most coveted distinctions open to young British architects.

Persons wishing to become candidates for the scholarship must make application upon a special form, which must be deposited with the Society not later than May 15, 1923, together with examples of original work of a high standard of architectural merit, executed or otherwise, together with letters of recommendation.

The Victory Scholarship, which was instituted by the Society of Architects several years ago, will be awarded for the third time this year. The scholarship is to the value of one hundred pounds, and carries a gold medal. The success which has hitherto attended this competition is largely due to the soundness of the lines on which it is conducted, and which are derived from those generally in use at the Ecole des Beaux Arts in Paris. Ten final competitors are required to prepare a sketch design, the subject of which is only disclosed at the last minute, at a twelve hours' *en loge* sitting. Last year close upon sixty entries were received, and the gold medal went to Mr. H. St. John Harrison. The entire collection of drawings was subsequently exhibited at Cambridge, Sheffield, Manchester, Leeds, Liverpool, Glasgow, Edinburgh and Bristol.

"The Architect" Fifty Years Ago.

APRIL 19, 1873.

SWIMMING BATHS ON THE THAMES.

A prospectus has been issued of the Floating Swimming Bath Company (Limited), with a capital of £100,000, in shares of £2, to erect, according to designs by Captain Roberts, and with the sanction of the Treasury, the First Commissioner of Works, and the Conservators of the Thames, floating swimming baths on the river, the first of which is to be stationed off Somerset House. Its dimensions will be 360 feet long by 40 feet broad, with a depth of from 4 to 10 feet, and it will cover an area of 14,400 square feet, will contain 200 dressing rooms, and will accommodate 200 bathers at one time, besides 48 private baths, hot and cold. By the arrangements which the company have made, the great expense of an artificial supply of water is avoided, as under Captain Roberts's patent a continual change of water, filtered and purified, as well as regulated in temperature, according to the season, will be insured. According to Captain Roberts's system, there will be a continuous flow of clean water, equal in volume to the contents of the bath, so that bathers will have the hitherto exceptional advantage of bathing in a constant stream of clear running water. The entire cost of these baths will not exceed £40,000. It is proposed to erect similar baths on the Mersey, the Clyde, the Tyne, and other rivers.

The British School at Rome, of which the administrative offices are at 1 Lowther Gardens, Exhibition Road, London, S.W.7, has issued the conditions of the Rome Scholarships, 1924, in decorative painting, sculpture, and engraving. The scholarships will be each of the value of £250 per annum, and will be ordinarily tenable for three years at the British School at Rome.

An expenditure of £53,500 is proposed by the Bournemouth Corporation for building the last half-mile of sea wall and promenade east of Boscombe pier. When the scheme is completed, together with another section west of Bournemouth pier, the town will have three and a quarter miles of continuous undercliff promenade. The work is urgent, owing to the rapid erosion of the cliffs, on top of which, for two-thirds of the proposed protective works, stand the Cliff Pleasure Gardens.

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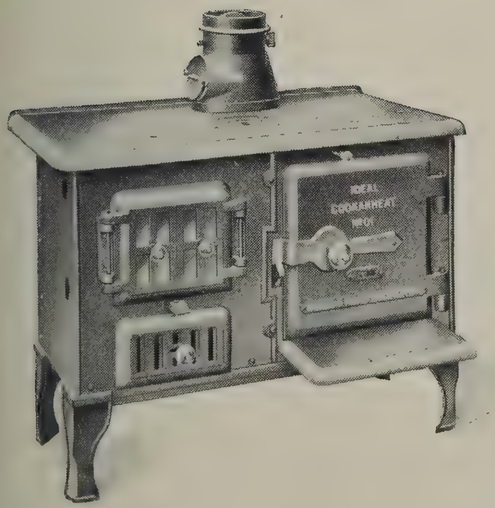

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The Building Crisis

Owing to an expression of opinion from Lord Buckmaster having appeared in "The Times" and having created by inference an impression which is bound to be misleading to many of the general public, The National Federation of Building Trades Employers of Great Britain and Ireland have asked us to publish the full correspondence which has passed between Mr. Stephen Easten, Chairman of the National Wages and Conditions Council and Lord Buckmaster.

[*Copy of letter from Lord Buckmaster, dated* 8/4/23, *published in "The Times" of* 9/4/23.]

Sir,—To-day's papers state that notices have been posted to the operatives in the building trade threatening a cessation of work unless the men agree, as from next Saturday, to a reduction of wages and an extension of hours. This means a complete paralysis of the building industry at a moment when it is of national importance that efforts should be made to overtake the arrears in building and to provide decent homes for the many thousands of people who are to-day living in a condition which is a disgrace to our Christianity, our civilisation, and our wealth.

I will not invite consideration of the actual wages paid and the actual hours worked, for the men state that these are, at the present moment, fixed by an agreement which has not been determined and by which they are ready to abide.

It is obvious that this must be the first question for determination. I have before me a copy of the document which purports to constitute this agreement, and it provides that any party desiring to retire from its provisions may do so on giving not less than six calendar months' notice, to expire at the annual meeting in the following year. I can see no other means for its determination. The annual meeting is to be held in March. It follows, therefore, that unless such notice has been given it cannot now be made operative before March, 1924, and I have seen nowhere any suggestion that either side has issued such a notice. The agreement, therefore, appears to remain in force, and the men assert that the proposed action of their employers is in direct violation of its terms.

This is a very serious charge. The strength and value of any contract is only tested when it is against the interest of one of the parties to render obedience to its provisions, and there can be no peace and no hope for peace in the world of industry if agreements made for the purpose of settling trade disputes are disregarded by any party when they are found to be inconvenient.

It may be that, for the efficient and economic provision of houses, the agreement needs to be changed. About this I cannot speak. But it is, of course, a commonplace of economics that the highest possible wage compatible with the profitable conduct of industry is an essential element in the increased domestic demand for goods which is essential for the maintenance of our commercial prosperity. On the other, and to my mind the higher reasons which call for the maintenance of wages at their highest possible point, I have not touched, for these and similar considerations are not germane to a discussion, the resolution of which depends on the answers to three questions: (1) Is there an agreement at present existing binding both employers and men with regard to wages and hours in the building trade? (2) Is it intended that this agreement should be broken? (3) If so, by whom is the breach threatened?

Yours faithfully,
Buckmaster.

[*Copy of letter from Mr. Stephen Easten, in reply to Lord Buckmaster's letter in "The Times," dated April* 9, *and published in "The Times" of April* 11, 1923.]

The Rt. Hon. Lord Buckmaster, P.C.,
1, Porchester Terrace, Hyde Park, W.1.

Sir,—My attention has been drawn to the letter appearing over your signature in to-day's "Times" and I am, as Chairman of the National Wages and Conditions Council, grateful for the expressions which your Lordship has considered it wise to make on the present situation.

The views which you have been pleased to express regarding the misfortune attendant upon a stoppage of work at the present time I heartily concur in, but the employers feel that after every possible concession had been made without any response whatever in offering to submit the whole of the matters at issue to arbitration, they have gone as far as it is possible towards preventing such a calamity occurring, and have adequately fulfilled the letter as well as the spirit of the agreement.

It would not be prudent for me to challenge your Lordship's knowledge of the law of contract, or to attempt to dispute the legality of any decision you have felt compelled to arrive at from the information which you say has been placed before you.

The deep appreciation which I have, that your Lordship's intervention at the present stage is actuated solely from a desire to prevent any development of the dispute, I desire with every respect to point out that apparently you have not been made aware of the whole of the circumstances of this case.

The employers have never sought to contend that the agreement does not provide for six months' notice to be given for its determination or alteration, but it must be borne in mind that when the National Agreement was entered into, the National Wages and Conditions Council were charged—*inter alia*—to deal with the question of the 44 hours' week which was passed to them from the National Conciliation Board after proper notice had been duly given and acknowledged. The agreement also provided, under Clause 14 (*c*), that apart from other methods specified in the agreement for the adjustment of wages, circumstances affecting trade should also be especially considered.

When the National Wages and Conditions Council met in January, its Agenda dealt with the deferred matter of the 44 hours' week and also the question of wages, which the employers desired should be considered under Clause 14 (*c*).

At this meeting the operatives' representatives refused to give a decision without referring the matter to their members, as they stated they had suffered very severe criticism from their members owing to their action in agreeing to accept in June last a reduction of 2d. per hour under the Constitution.

The appointment of the members of the National Wages and Conditions Council on both sides was understood to carry with it judicial powers, and when the operative members refused to fulfil their duties, as the appointed representatives, the labours of the Wages and Conditions Council were brought to an abrupt termination. This view was brought strongly to the operative members' notice time after time without avail, and your Lordship will appreciate that, in those circumstances, a hopeless position was created, justifying, in the employers' opinion, the course which they adopted.

As you have purposely not dealt with the other aspects of this matter, I do not think it desirable to further elaborate the employers' case, but for your Lordship's information the enclosed article is submitted.

As I feel that your Lordship has been misinformed, and may desire, from the enclosed information, to modify the views expressed in your letter to "The Times" of to-day, I am withholding sending any information to the Press, pending the favour of your reply, which, in view of the extreme urgency of the situation, I shall be glad to receive at the earliest moment.

Yours faithfully,
Stephen Easten,
Chairman, National Wages and Conditions Council.

[*Copy of letter from Lord Buckmaster, dated April* 9, *in reply to Mr. Stephen Easten's letter of April* 9, *and published in "The Times" of April* 11, 1923.]

1, Porchester Terrace,
Hyde Park, W.

Dear Sir,—I am in receipt of your letter, and recognise and appreciate the courtesy of its tone. I do not profess to have knowledge of the merits of the present controversy nor, indeed, if it is covered by the agreement, but only to see whether it is or not; if it is not, the matter of the agreement falls; if it is, the agreement ought to hold.

I admit I do not know what is meant by the phrase in Clause 14 (*c*) of "general status," but, at any rate, its consideration only arises where the question as to alteration of wages and hours *pursuant to the agreement* arises. I do not think I have anything to modify in my letter.

Yours,
Buckmaster.

[*Copy of letter sent from Mr. Stephen Easten, April* 10, *and published in "The Times" of April* 11, 1923.]

The Editor,
The Times.

Building Dispute.

Sir,—Referring to Lord Buckmaster's letter in your issue of the 9th inst., herewith please find copy of a letter sent to his Lordship and his reply thereto, which I shall be glad if you can see your way to publish.

It does seem a pity that a gentleman of the eminence of Lord Buckmaster, before he has considered all the facts, should commit himself in a way that is bound to be misleading to so many of your readers.

His Lordship states that he had before him a copy of the document which purports to constitute the agreement between the employers and operatives; and that it provided for six months' notice, etc. He further states that "the agreement still remains in force, and that the men assert that the action of the employers is in direct violation of its terms," and then states his own inference that this is a very serious charge.

The inference that has been drawn from his letter of the 9th is that he had given consideration to the document before making the above announcement, whereas in his reply to me, written after having received my explanatory letter, he candidly admits that he does not profess to have knowledge of either the merits of the controversy or if it is covered by the agreement.

As the employers' offer of arbitration included the interpretation of the agreement, it is obvious that the questions asked in the last paragraph of his Lordship's first letter would have been best left to be answered by the arbitrator.

Yours faithfully,
Stephen Easten,
Chairman, The National Wages and Conditions Council.

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New Catalogues.

Messrs. James W. Carr & Co., Ltd., builders' merchants and hardware factors, 35 Queen Victoria Street, E.C.4, manage to compress a very wide range of goods into their illustrated 20-page catalogue and price list, beginning with portable ranges and ending with cast-iron gutters. Messrs. Carr obviously deal with some of the best manufacturers, and are to be relied upon.

J. H. Heathman & Co., Parson's Green, Fulham, S.W., have issued a new list giving the revised nett prices for their steps, ladders and trestles, and, to be complete, we must add "trucks and trolleys," though these latter have rather scant mention. It is something of a revelation to see the number of different kinds of ladders and steps manufactured by this widely known specialist firm.

The Western Electric Co., Ltd., Connaught House, Aldwych, W.C., who pride themselves on having been during half-a-century the pioneers of improved speech communication, have sent us a short booklet giving eight standard designs for "Ornamental Loud Speakers." Any old-fashioned folk who regard broadcasting with a hostile eye may be somewhat mollified when they find the "loud speaker" has lost its painful resemblance to a ship's ventilator, and has become gay with design in colour which contrives somehow to escape the crude blackness of the usual horn. A feature of this short catalogue is the admirable printing and splendid type.

Messrs. Waygood-Otis, Ltd., 54-55 Fetter Lane, E.C., are to be congratulated on their latest illustrated catalogue which, both in description and illustration is remarkably successful. Illustrations are given of various arrangements of passenger, goods and service lifts, and some suggestions for the benefit of Architects as to the best method of arranging and grouping lifts. Plans are included of typical installations which the firm have actually carried out recently. Particular attention may be drawn to their micro-drive self-levelling lift on pages F1 and F2. This is a considerable improvement, as it secures accurate stopping at the floor levels under all conditions of load and speed. There is illustrated on page J2 the new type of Escalator which Messrs. Waygood-Otis are now building for the London Underground Railway in several of their stations. This contains a number of improvements, as regards quietness in running, durability and safety precautions to guard against breakdown or accidents.

Messrs. Geo. W. King, Ltd., Stratford, E., devote the first part of a 50-page catalogue to their patent "Out-of-the-Way" and "Around the Corner" sliding door hangers and fittings, of which they were the original introducers. This system has been evolved to meet the need for a garage door which could be opened its full width without requiring the rail and posts inevitable in a straight door track. Judging by letters from users, the patent seems eminently satisfactory. The remainder of the catalogue is descriptive of the "Kingo" straight tubular covered door track and fittings and their overhead runways.

Messrs. George MacLellan & Co., Ltd., Glasgow Rubber Works, Maryhill, Glasgow, show ten designs, many of them in colour, of their silent rubber tiling—each of which may be obtained in other colourings and in any size. No prices are quoted except for rubber carpeting. The catalogue includes a selected list of buildings and ships where the tiling has been laid down.

W. J. Furse & Co., Ltd., lightning conductor and chimney specialists, Nottingham, have just published a four-page leaflet descriptive of "Hedges" Patent Tubular Earths, of which they are the licensed manufacturers. Mr. Killingworth Hedges is well known in this branch of research, and his pattern tubular earth (which is said by Sir Oliver Lodge to possess considerable advantages over the usual plate earth) has been installed for the protection of such important buildings as St. Paul's, Westminster Abbey and the Admiralty. The pamphlet gives a description of the system and how to instal this feature of every well-equipped lightning conductor installation as well as prices of the tubular earth itself.

The London Electric Wire Company & Smiths, Ltd., Playhouse Yard, Golden Lane, E.C., have spared no pains in the production of their loose-leaf price list, so as to have something which will stand constant handling and revision. Its strong, board covers, patent-file hinges, and orderly classification gives it an air of distinction not often associated with trade catalogues. The seven sections are divided as follows:—I. Technical data. II. Association and non-Association cables. III. Flexibles. IV. Telephone wires, cables and bell wires; telephone cords and flexibles; aerial cables; wireless flexibles. V. Armature and magnet wires; instrument wires; enamel insulated wires. VI. High-resistance wires. VII. Sleevings, arc lamp flexibles, asbestos covered wires, ebonite, fuse wires, dynamo brushes, and jointing materials. By opening the hinges any out-of-date leaf may be replaced by any new one or further sections may be added without spoiling the neatness of the rest.

Messrs. Engert & Rolfe, Ltd., Poplar, E., have recently issued an "Epitome" of their work and productions as roofing felt and asphalte manufacturers and contractors, which will, we suspect, be a revelation to many as to the range of their goods and the multifarious uses to which they can be applied. Emphasis is rightly laid on the fact that the company are in a position to guarantee unreservedly the quality of their rock mastic asphalte cakes, as they are the actual importers of the crude rock, which is crushed, ground, graded and cooked at their own works. The catalogue is a mine of information as to the best way of using the various waterproofing and non-conducting materials—whether it be the laying of "Lim-a-lith" roofing, suggested specifications for "Waterp" and "Lithonite" roofs, or diagrams showing the use of "Equatemp" deafening felt. The forty-eight pages are enlivened by photographs of some of the structures where their specialities have been introduced, the frontispiece being the London County Hall, where about 3,500 yards of water-stopping rock asphalte dampcourse were part of the substructure contract.

Walter Carson & Sons, Battersea, S.W., and Dublin, have combined their colour card, price list and catalogue into a very convenient booklet which compresses a great deal of information into a small compass. In view of the recent Government report on white lead it is interesting to read the following paragraph, which appears on the first page:—"White lead has long been assumed by paint makers generally to be the most permanent coating for white and light coloured work. Our many years' practical experience does not lead us to this conclusion, and we have devoted our attention to perfecting various classes of paint which will resist climatic influences far more successfully than white lead, notably our Anti-Corrosion, "Vitrolite," and Pure Liquid paints. We do not wish to imply that white lead is a bad paint, but we claim that in lasting qualities and general efficacy it can be improved upon, and we have ample testimony to support our contention." Messrs. Walter Carson & Sons therefore specialise in the various paints (such as oxides, greens, browns, etc.) in which, on account of their colour, white lead cannot be used. Their non-poisonous paints are made in fifty-four shades. The booklet gives full particulars of their many and well-known productions as colour paint and varnish manufacturers.

Messrs. W. H. Gaze & Sons, Ltd., 10 Conduit Street, W., and Kingston-on-Thames, consider they have achieved an improvement on their red "All-weather" tennis court by producing an indelible green hard court which will retain its colour under all conditions. Though the initial cost is more than on the red court, the saving in upkeep is said to be considerable. Gaze's green and red "All-weather" hard courts may be seen and tested by appointment at the "Gazeway," Surbiton, S.W., or a short four-page leaflet is obtainable which describes its merits.

The Phœnix Engineering Co., Ltd., Chard, Somerset, have issued a leaflet giving a general description of a new track gritting machine which may be quickly fitted to any cart or motor lorry for temporary use. It delivers the grit on to the road in a continuous stream 4 to 5 feet wide.

J. Wright & Co., New Malden, and 9 Regent Street, S.W., are able to describe themselves as "inventors and original manufacturers of concrete building, partition and 'fixing' blocks for walls, floors and tile hanging, lintels, fencing posts, etc." They have sent us leaflets showing primarily the adaptability of their "Utility" blocks for construction of walls and filter beds. This block is composed of crushed ballast, sand, and British Standard Portland cement. In cavity walling, the outside is constructed of ballast concrete blocks and the inside of breeze blocks. Each block is held rigid by a bead and hollow in addition to the usual bonding. Reference is also made to the firm's partition blocks, of which a large and well-seasoned stock is always kept.

Trade Notes.

Wheeler & Comyn Ching (Asia), Ltd., are carrying out contracts amounting to about £70,000 for heating, ventilating and vacuum cleaning in three large buildings in Shanghai, and they have secured a further contract for the Yokohama Specie Bank, Shanghai.

The annual staff dinner, marking the completion of the fifty-first year of the Limmer and Trinidad Lake Asphalt Company, Ltd., took place at the Restaurant Frascati on Friday, April 6, attended by one hundred members of the staff. Mr. George Mitchell, chairman for the evening, and his colleagues, Messrs. Bond and Marriott, comprising the Board of Management, paid tribute to the excellent working of the company due to the *esprit de corps* which was so evident throughout the firm's large staff, members of which were now resident in all the principal cities of the British Isles.

VOL. CIX.—2836. THE ARCHITECT APRIL 27, 1923.

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The Spirit of the Age.

The underlying conditions of civilisation must exercise a dominating influence on its architectural development, and in order to better judge of that development it is necessary to clearly understand the conditions of the time. What are the real conditions which dominate us to-day as a people? Many who look at superficial developments would say a much greater inclination to look at problems from a broad standpoint, and to study the means of meeting communal wants, but such an answer appears to us to be partial and incomplete.

When the Danes first visited our shores and harried the inhabitants they were bought off. No doubt those who contributed towards the Danegeld were to all intents and purposes combining together to effect a common end; but this was the result of personal fear on the part of a population unwilling or unable to beat off the invaders by force, and not the result of enthusiasm for the common good. In a similar manner we know that much of our social legislation—often so ineffective in its results—is less dictated by brotherly love than by a desire to buy peace at the cheapest possible rate, so that we can with more security devote ourselves to our own immediate personal concerns, the keen pursuit of which is the dominant passion in the modern world.

And not only does our social legislation remind us of the older Danegeld, but as a rule we usually save ourselves the trouble of forming any clear conception of the nature of the bribe or bonus which is most calculated to secure us the peace we seek. This task is left in the main to the professional politician whose choice of a career makes the pleasing of the people an end in itself, after which the Deluge may or may not follow as fate decrees. Thus it is easy to show that our so-called public spirit, together with much philanthropy, is merely the outcome of an insuperable laziness and absorption in our own immediate concerns.

That this was not the case in the past is proved by the fact that the lack of all the ameliorating elements of modern life would have produced savagery were it not for the fact that men exercised more initiative, and were forced to solve questions for themselves and to undertake duties now considered to be the special prerogative of the State.

Institutions and forms of government have little to do with human progress, and are frequently not signs of growing civilisation, but of the desire of mankind to free its individual elements of the necessity for thought and initiative.

We can divide the laws under which we are governed into two divisions, the first of which mark the successive stages by which the privilege of classes or individuals were abrogated in the endeavour to give full freedom of action to all, the second a series of enactments which are distinguished by the principle of the payment to one class of that which belongs to another in the hope of appeasing popular discontent—in fact, we have the principle of the old Danegeld revived.

Free education, in some cases free meals, partially free housing, are all forms of one and the same class of measure, and all owe their inception more to public apathy than to conviction, and all are stages on the rake's road to ruin.

All this has a direct bearing on architectural development, for many of our buildings are not the spontaneous development of the needs of a community which the individuals of that community combine to furnish, but represent doles in some form or the necessary adjuncts of doles paid for out of public money by municipal politicians who, like their colleagues in Parliament, are making an individual career out of a public position. Some buildings, like our public libraries, owe their origin to a different cause, and it is interesting to speculate how many public libraries the country would have possessed were it not for the fact that an American millionaire had a fancy for using a small portion of a fortune acquired in the Steel Trust on monuments erected during his lifetime. Many of our Town Halls are the outcome not of a necessary want, but of the inclination of a council to house itself well out of the proceeds of public rates, and the most cultivated sections of the public are probably those who as a class take least notice, and certainly make least use, of our public buildings. If we want to judge of the taste of the nation freely exercised we shall be wise to estimate it by the houses erected and paid for out of private incomes, and by the commercial premises which are considered by those who build them to appeal to the wants and tastes of the public. Were we to examine a hundred Londoners we should find a far greater proportion of them who could express an opinion of Selfridge's shop than of the Tower of London or of Greenwich Hospital. We do not mention churches in our category, for while many new churches have been erected in our towns the greater part of the country is served by buildings which have come down to us from centuries in the past, and which either as they are or with later additions have to suffice for the wants of to-day.

We have replaced tradition by prevalent modes or by fashion, and it depends on the individual taste of members of the public and the skill of the architects employed by them whether or not the results are comparable in merit with those reached in former days under other conditions. Disraeli once described the English as a people who "had stopped short at comfort, mistaking it for civilisation," and the gibe is one we must often feel is founded on truth.

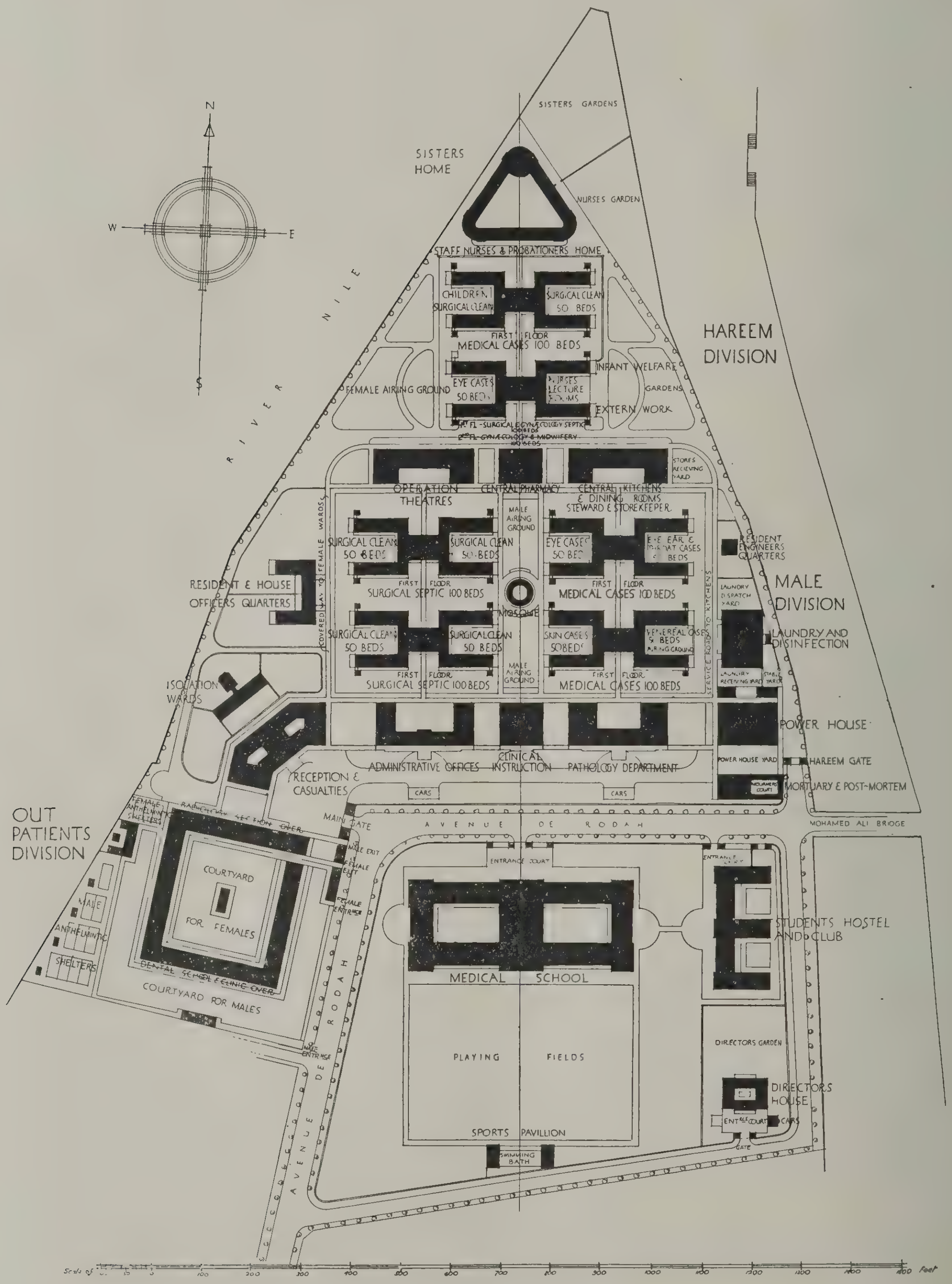
The advent of the motor car and difficulty of service are curtailing the architect's opportunities, or at any rate deflecting the direction of his activities. Legislation and threatened legislation have shaken public confidence in the security of landed property and what must be built upon it, and we have in its place an added impetus in the direction of the provision of places of public entertainment, and the almost insoluble problem of providing for the poorer classes of the community dwellings which will satisfy their wants, but for which they do not mean to pay if they can make others do so.

Possibilities of architectural development under such conditions must be full of uncertainty, though o great interest, but only the confirmed optimist steepe in romance would be inclined to say that the outloo is an extremely rosy one.

Our Illustrations.

QASR EL AINI HOSPITAL, CAIRO. Competition Design by W. & T. R. Milburn, Architects.

WATER TOWERS, YORK. From a lithographic print by George Harrison.



The buildings are axially arranged about one central axis running from south to north for the whole length of the site. At the north end of the island are placed the wards of the Hareem Division and the Sisters' and Nurses' Homes, so as to obtain seclusion. The wards in the Male Division are of two storeys and are so grouped as to form a large central airing ground for the male patients, with the Mosque as the central feature. The Main Gate is placed at the junction of the two branches of the Avenue de Rodah. The Out-patients' Division is a quadrangular building, the central courtyard being for female patients and th outer courtyards for male patients. On the detached portio of the site to the south of the Avenue de Rodah are placed th Medical School, Students' Hostel and Club, playing fields an Director's House. In the planning endeavours were made t obtain north light to as many rooms as possible, and the singl corridor type of plan was adopted for the separate blocks t obtain through ventilation. The buildings were proposed to b constructed of local stone from the Mokattam Hills.

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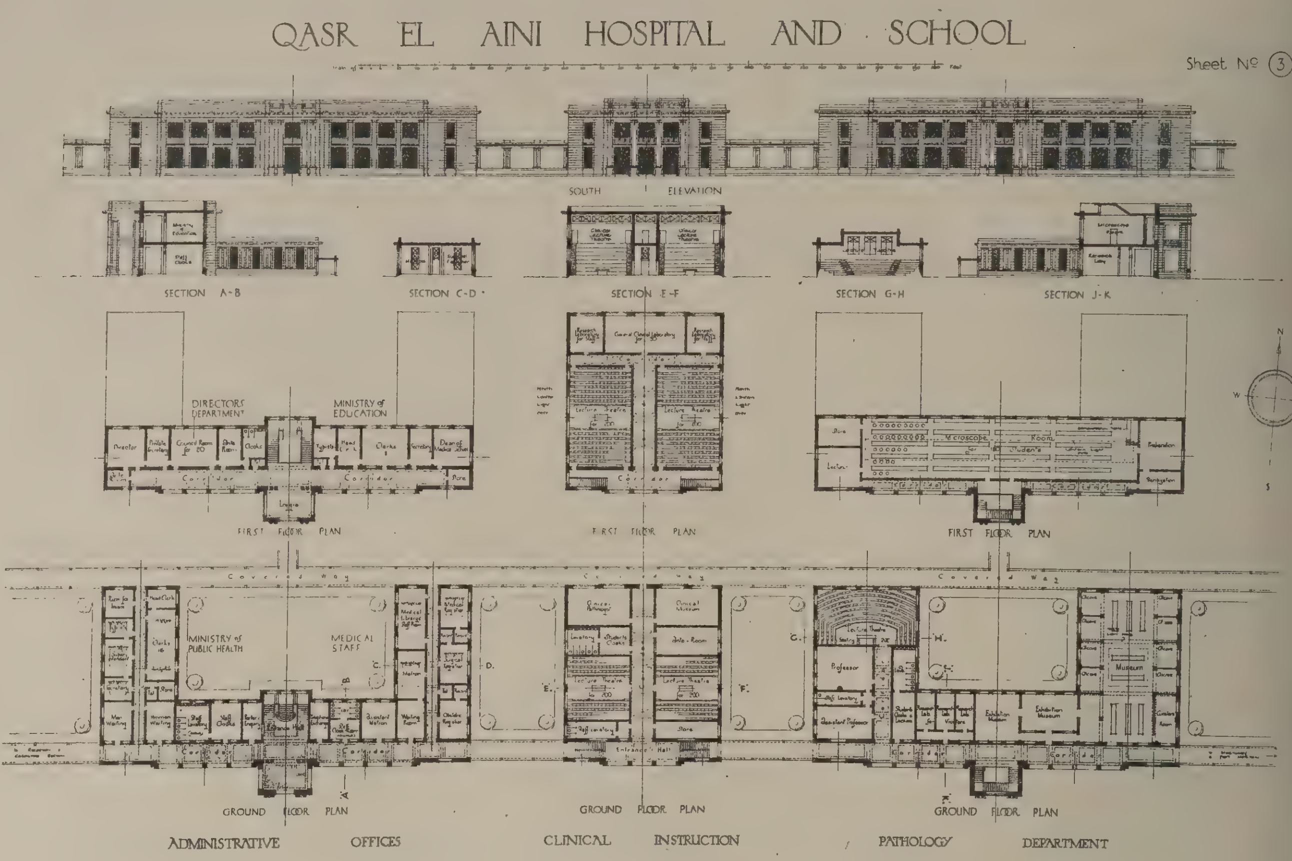
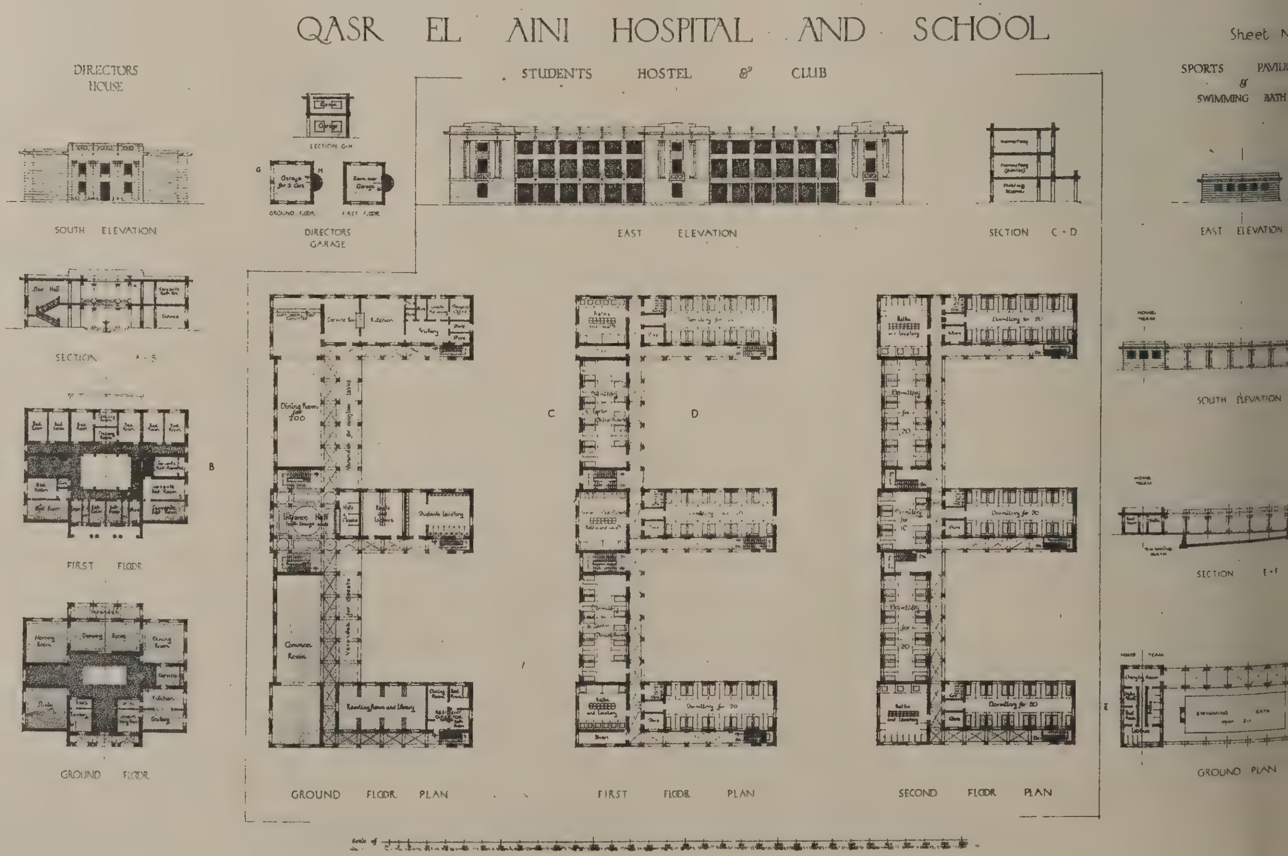
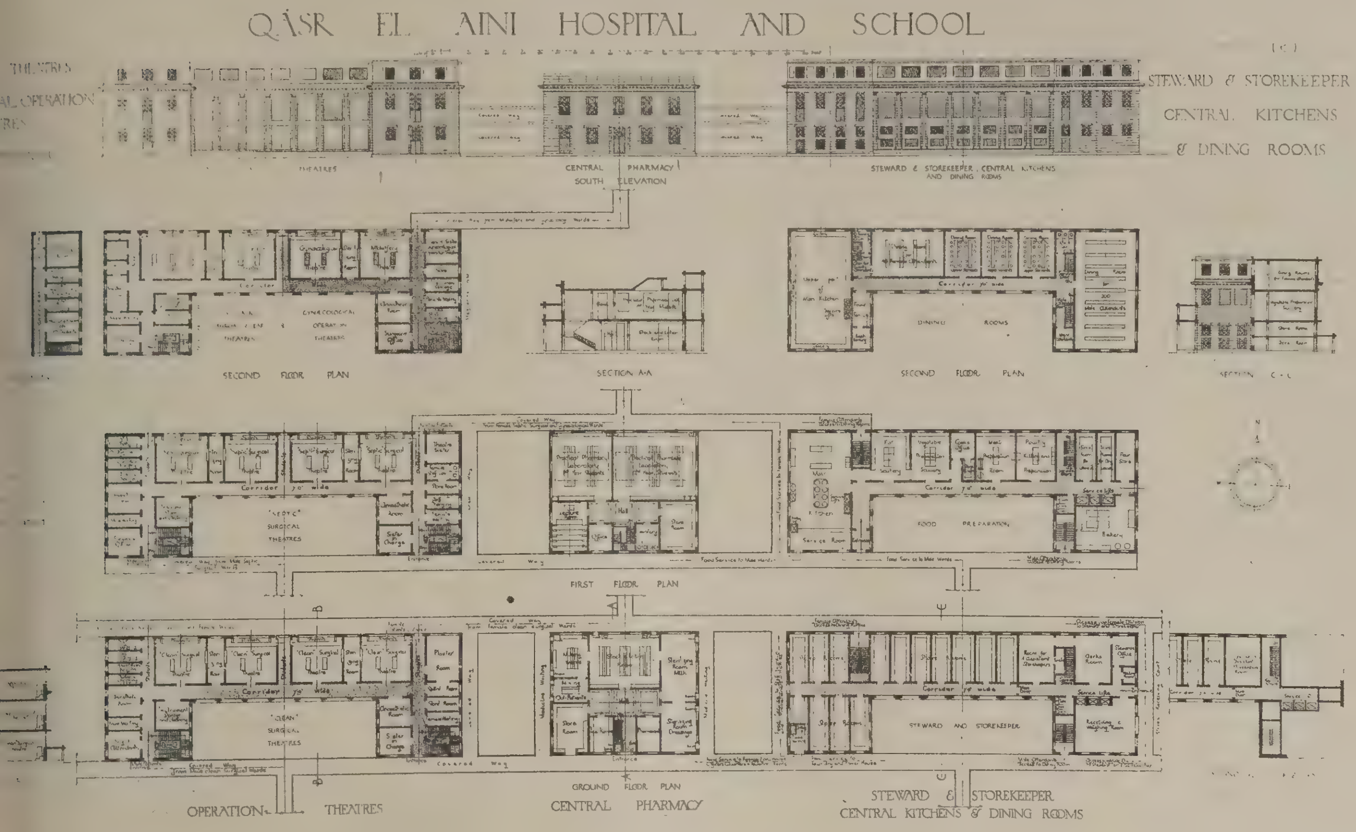
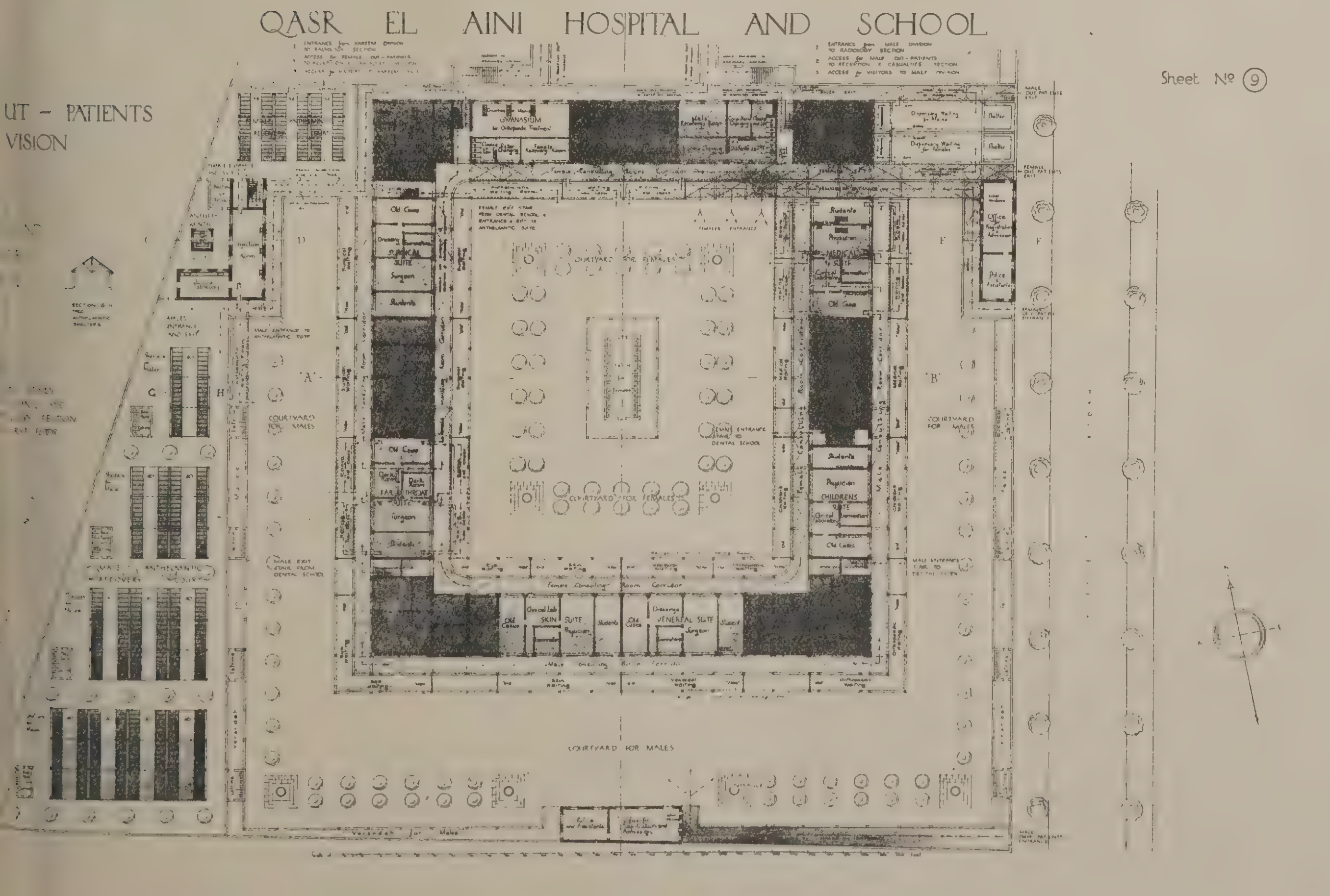




QASR EL AINI

WILLIAM





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OMPETITION, CAIRO.

IR ARCHITECTS.

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QASR EL AINI HOSPITAL AND SCHOOL

DENTAL SCHOOL AND CLINIC AND RADIOLOGY SECTION

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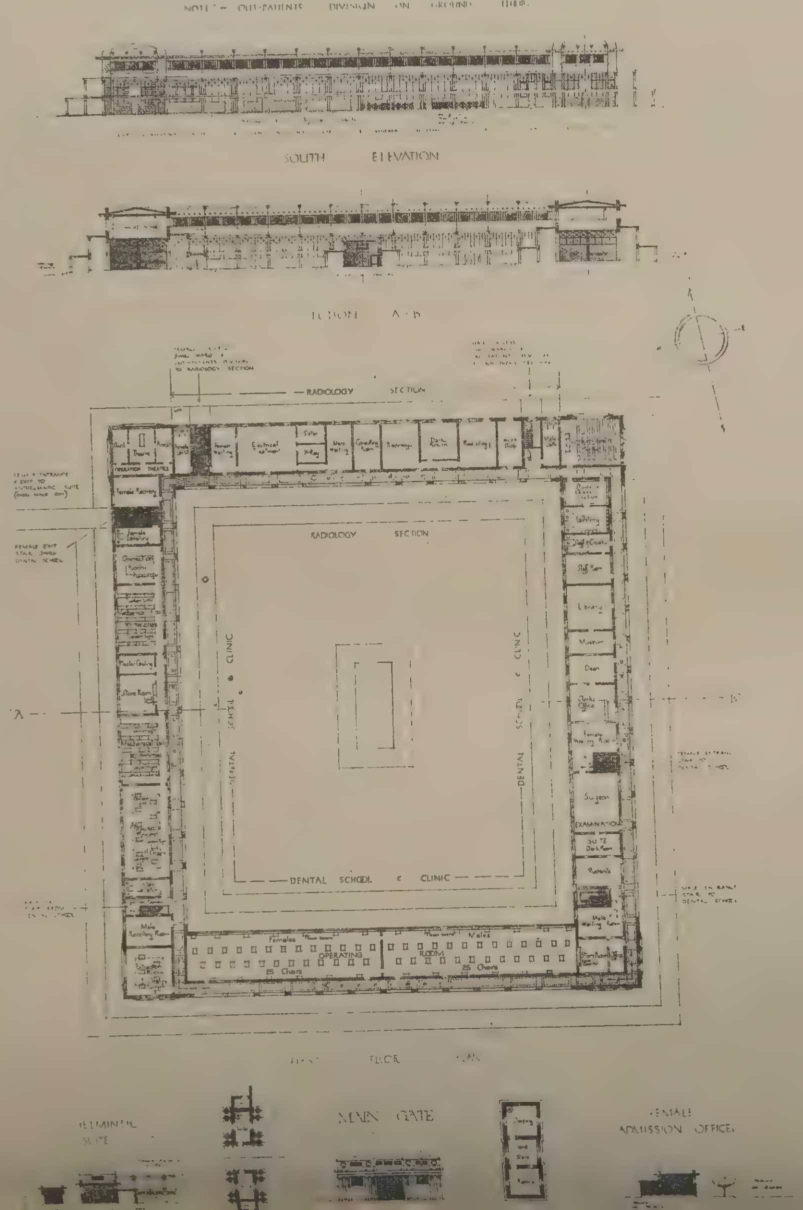

QASR EL AINI HOSPITAL & SCHOOL

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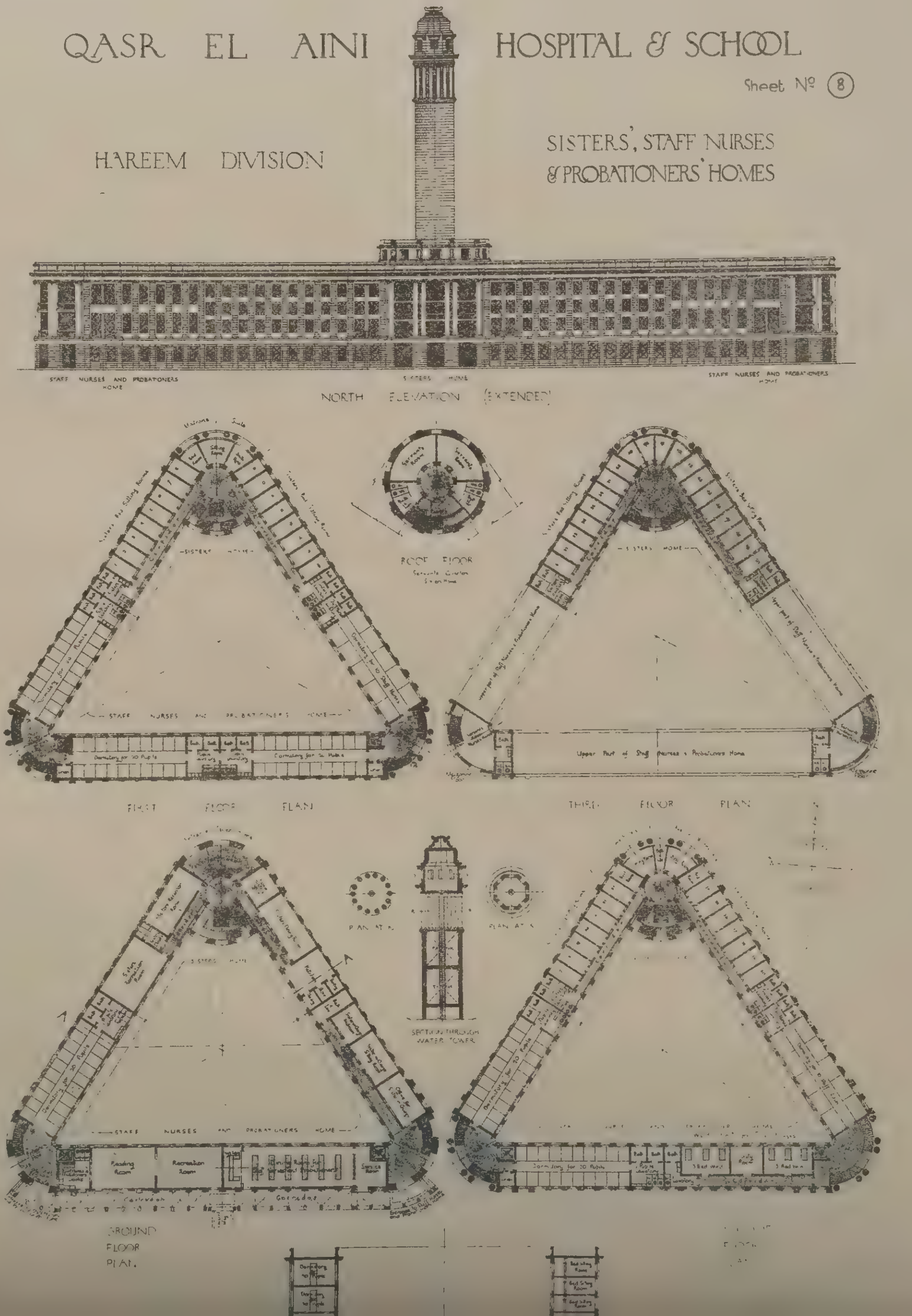
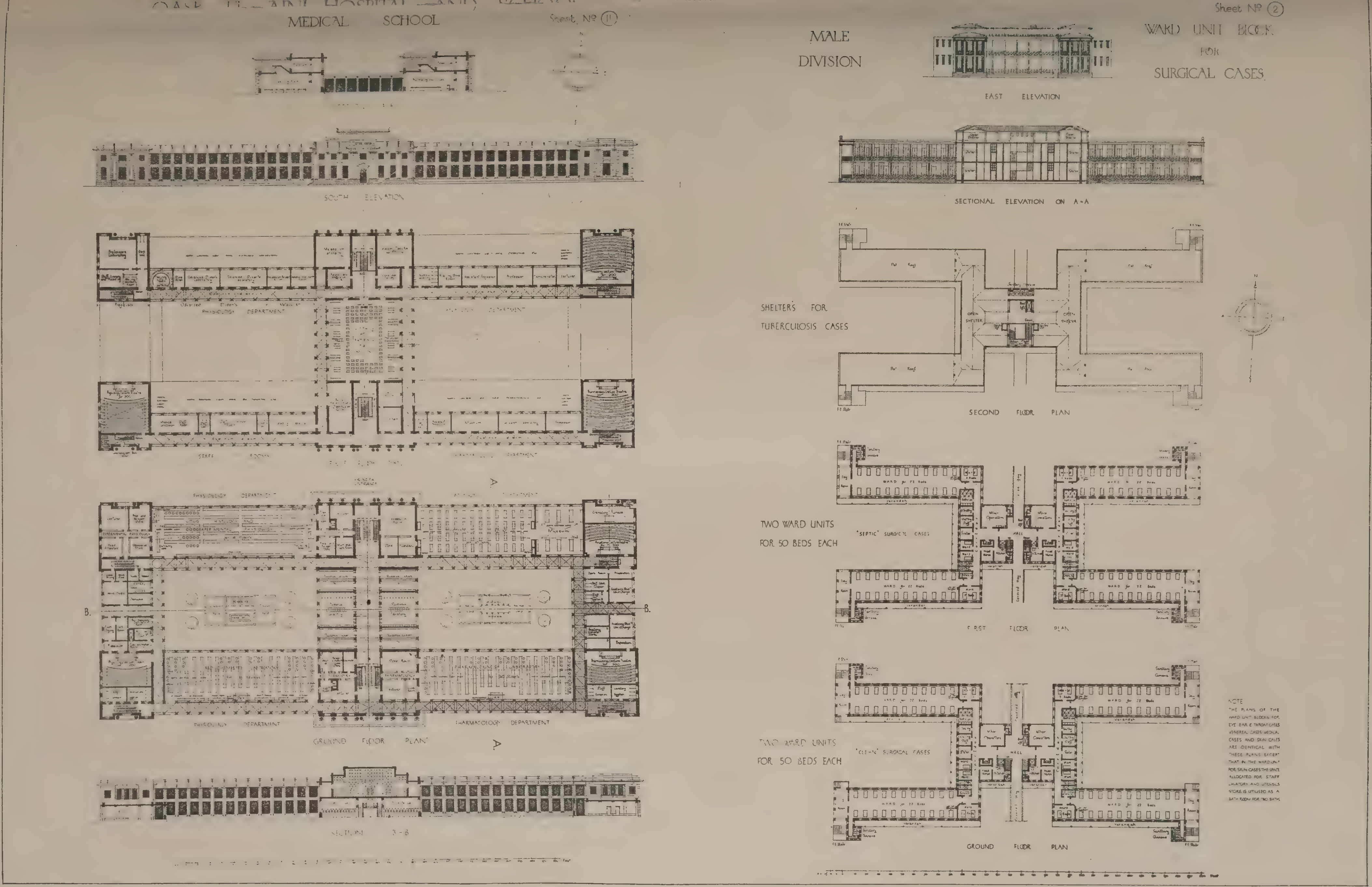
HAREEM DIVISION

SISTERS', STAFF NURSES & PROBATIONERS' HOMES





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QASR EL AINI HOSPITAL COMPETITION, CAIRO.

WILLIAM AND T. R. MILBURN, ARCHITECTS.

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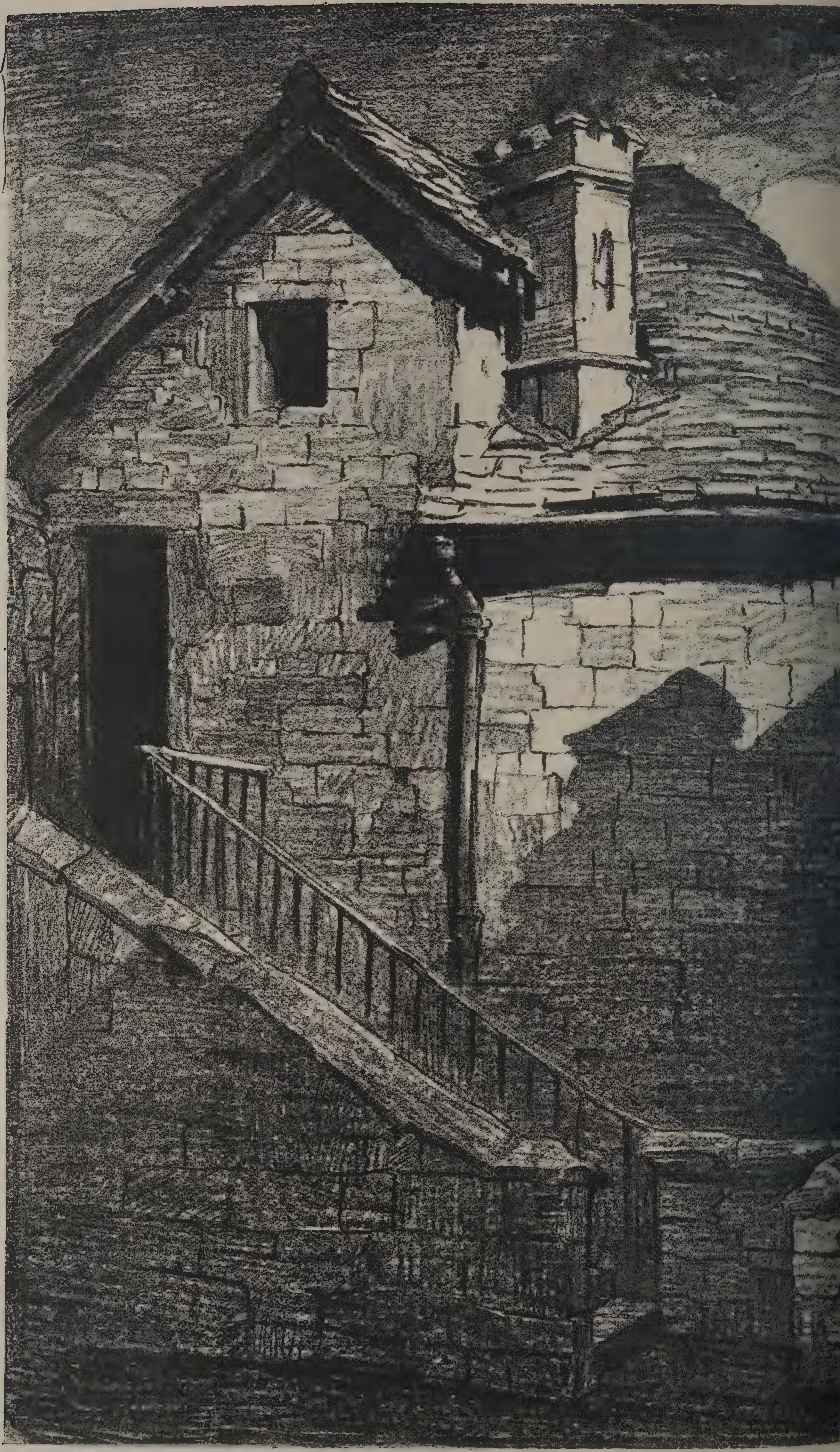

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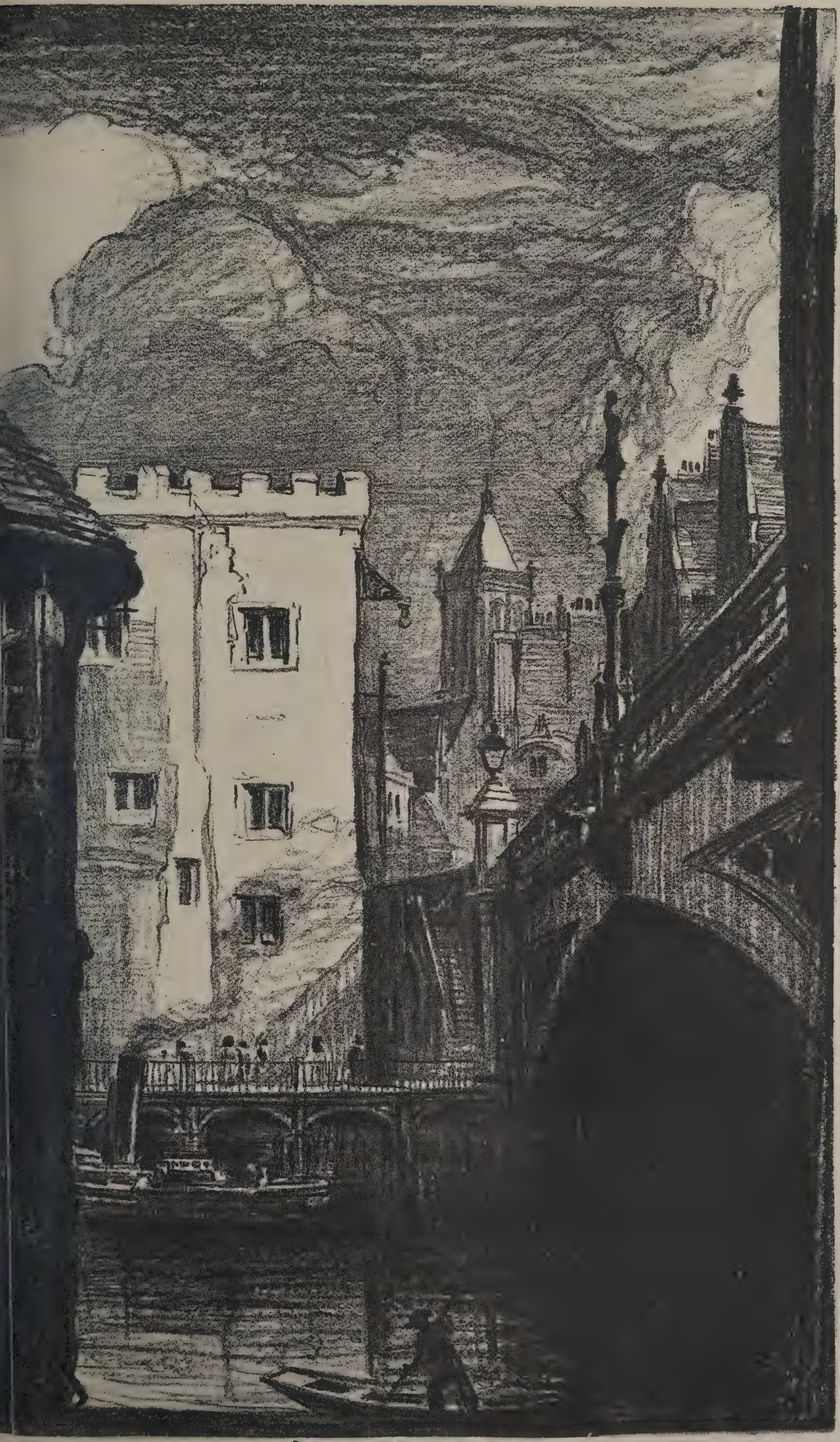

George Harrison

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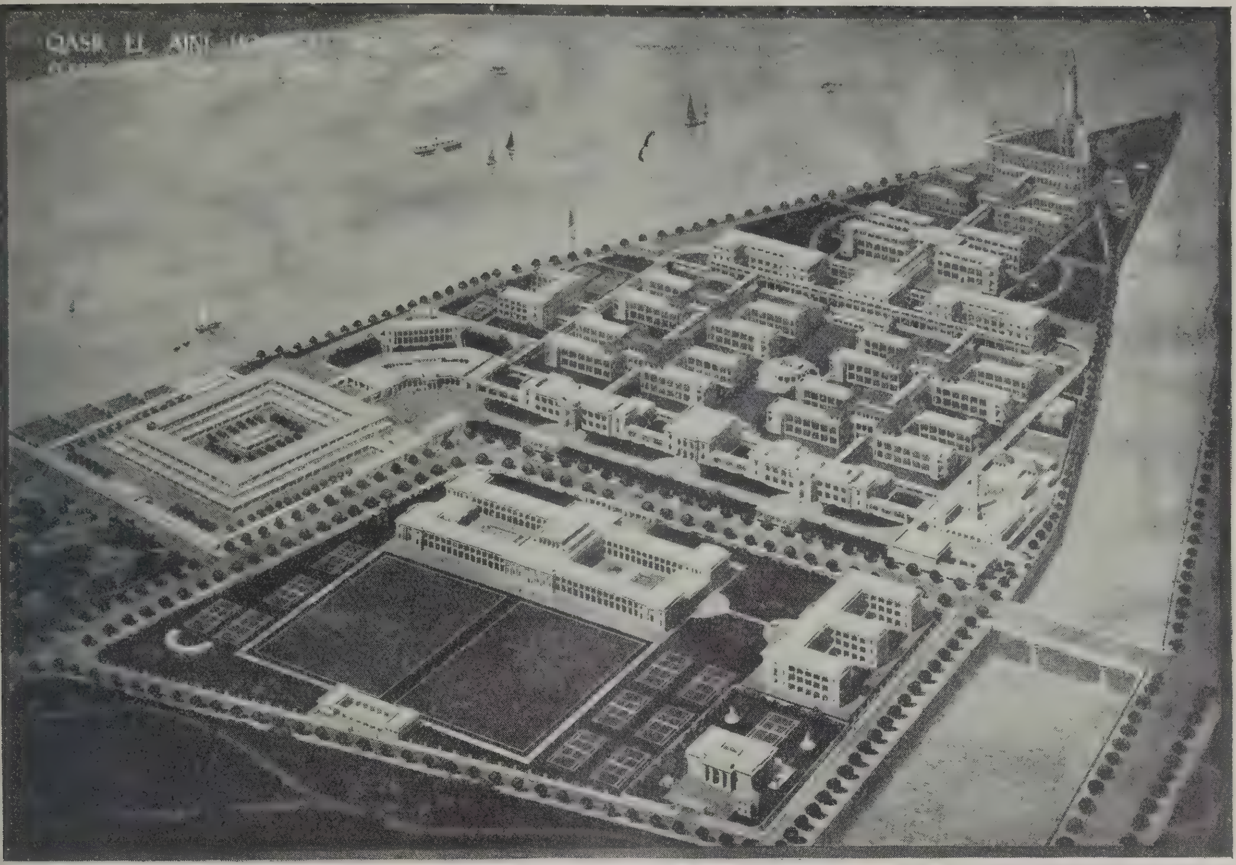
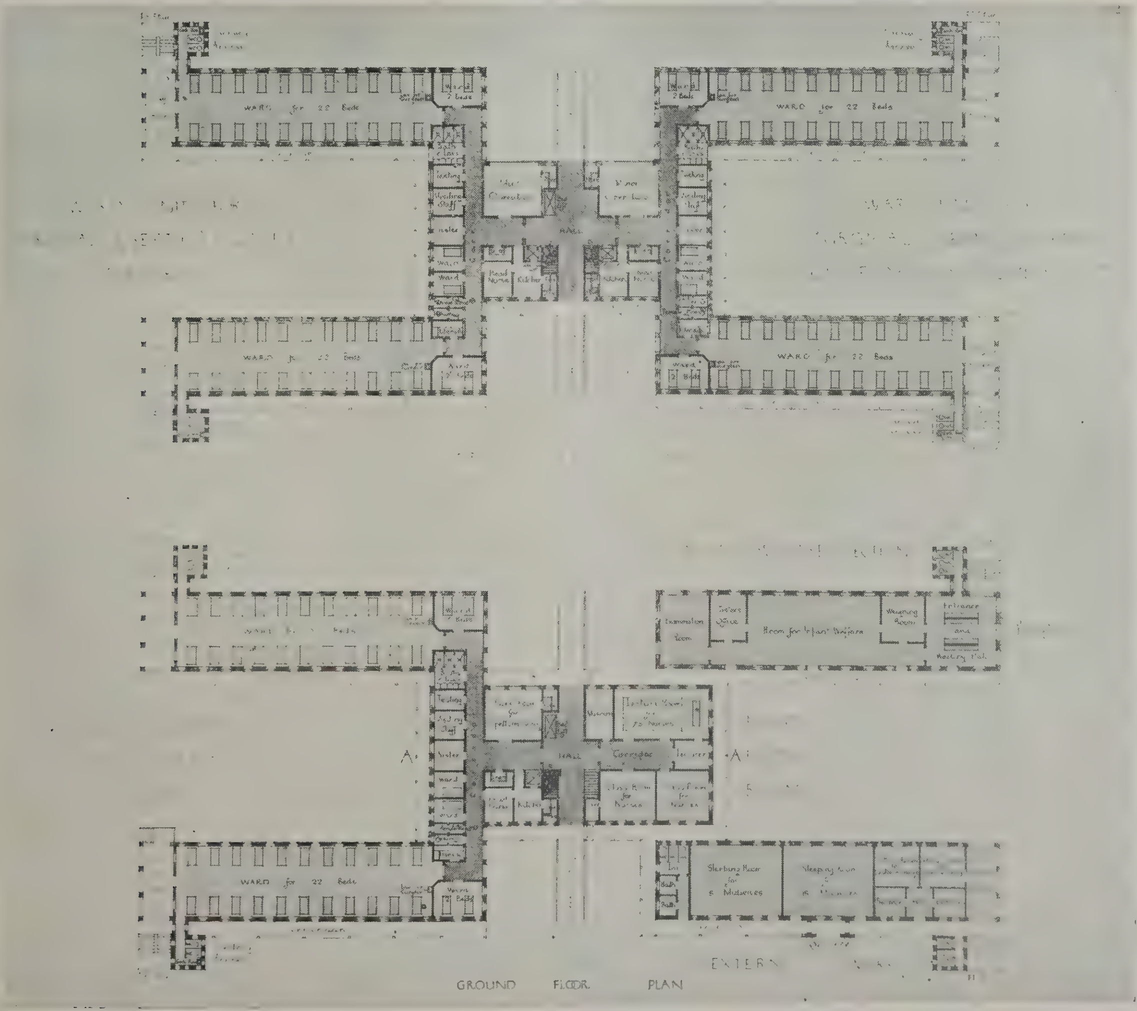


GENERAL BIRD'S-EYE VIEW.



HAREEM DIVISION; Second Floor plan similar to First Floor.
QASR EL AINI HOSPITAL SCHOOL, CAIRO. Competition Design by W. & T. R. Milburn, Architects.

A Presidential Election.

THE COUNCIL HOUSE LIST.

(Registration as an Independent Issue.)

President.

Cross, Alfred William Stephens, M.A., Cantab.

Vice-Presidents.

Heathcote, Charles Henry (Manchester).
Perks, Sydney, F.S.A.
Riley, William Edward, R.B.A.
Searles-Wood, Herbert Duncan.

Honorary Secretary.

Keen, Arthur.

Members of Council.

Chetwood, Henry John.
Clarke, Max.
Collard, Allan Ovenden.
Comyn, Heaton.
Edwards, Frederick Ernest Pearce (Sheffield).
Flockton, Charles Burrows (Sheffield).
Forrest, George Topham, F.R.S.E.
Fraser, Percival Maurice.
Gill, Charles Lovett.
Gotch, John Alfred, F.S.A. (Kettering).
Hiorns, Frederick Robert.
Hubbard, George, F.S.A.
Hunt, William George.
Joseph, Delissa.
Moore, Albert Walter.
Scott, William Gillbee.
Scott-Moncrieff, William Walter, M.C.
Shepherd, Herbert.
Solomon, Digby Lewis, B.Sc., London.
Swan, James Alfred (Birmingham).
Wills, Herbert Winkler.

Associate Members of Council.

Ashford, William Henry (Birmingham).
Bates, Ernest.
Culliford, Leonard Arthur.
Hepworth, Philip Dalton.
Scott, John Douglas.
Seddon, Joseph.
Welford, Arthur.
Woodward, Frank.

THE OPPOSITION.

(Unification before Registration.)

President.

Gotch, John Alfred (Northampton).

Vice-Presidents.

Barnes, Major Harry.
Buckland, Herbert Tudor (Birmingham).
Dawber, Edward Guy.
Green, William Curtis.

Hon. Secretary.

Keen, Arthur.

Ordinary Members of Council.

Ashley, Henry V.
Atkinson, Robert.
Burnet, Sir John James, A.R.A.
Cave, Walter.
Cooper, Sir Thomas Edwin.
Corlette, Major Hubert Christian.
Fletcher, Sir Banister Flight.
Fletcher, Henry Martineau.
Fraser, Gilbert (Liverpool).
Keppie, John (Glasgow).
Lutyens, Sir Edwin Landseer, R.A.
Milburn, Thomas Ridley (Newcastle).
Scott, Giles Gilbert, R.A.
Tapper, Walter.
Thomas, Sir Alfred Brumwell.
Thomas, Percy Edward (S. Wales).
Warren, Edward Prioleau (Berks).
Webb, Maurice Everett.

Associate Members.

Bradshaw, Harold Chalton.
Lawrence, George Churchus (Bristol).
Newton, William Godfrey.
Waterhouse, Michael Theodore.
Welch, Herbert Arthur.
Worthington, John Hubert (Manchester).

For the second time in the Institute's history the sitting Council's nomination for the Presidency is to be opposed, and it is interesting to consider whether such an innovation is or is not desirable.

It may be said that there is an unwritten law that the Council's nomination to the highest post in the Institute should be accepted by its members. We do not suppose that it can be asserted that in the history of the Institute any President has been elected who had not good claims to the office on the grounds of his status as an architect or his past services to the Institute. The President elected may or may not hold views in harmony with those of the elected Council on important questions, but directly he is elected he becomes *ipso facto* the impartial head of a great body, his main duty being to represent it in the public eyes and not to promote the exclusive interests or desires of any section. As far as controversial matters go, he is, therefore, not the protagonist of any policy, but the head of a Council who may be in the main elected to carry out a certain policy.

It is more than probable that the wave of opinion on the part of the voters last year, which showed itself to be overwhelmingly opposed to the adoption of Unification as a prelude to Registration, would have been sufficiently strong to have elected a President representing those views in opposition to Mr. Waterhouse, but it was definitely, and, we believe, rightly, held that the election of a President was not a party issue, and that Mr. Waterhouse deserved the support of all, whatever his opinions were. It seems to us to be regrettable that such an honourable precedent should be broken, and much as all of us like and respect Mr. Gotch, whom all would like to see at some future time in the highest position of the Institute, we feel regret that it has been thought necessary to provoke a conflict.

The House list contains the name of Mr. Arthur Keen, whose views are known to be at variance with those of the present Council and of Mr. Gotch himself, and this shows that the tide of party feeling which evidently runs so strongly is less marked on one side than the other.

It is difficult to discover how it is the present Council are held to have failed. They were elected on a very clear issue, and they have done their best to carry out the "mandate" given.

It would have been absurd to let a committee which held views diametrically opposed to those shown to be those of the electors to have completed a report, and this seems to us to be held to be the head and fount of their offending. The January meeting is described in the manifesto issued to be equivalent to a vote of want of confidence in the present Council, but in reality it only indicated a confusion of thought, the inevitable division which arises when any definite scheme is brought up for discussion, and possibly the result of a little skilful organisation on the part of the "outs" against the "ins." As has been over and over again shown, the comparatively small meetings at the Institute must not be taken as necessarily representing the views of the general body, which can only be demonstrated by a poll or by the results of the annual election. There was a great deal of talk about the necessity of securing general approval, but practically no criticism of the definite proposals formulated.

The advocates of Unification were in clover, for no one knows what Unification means, and no definite scheme was before the meeting. When and if the time comes in which it, like the Registration Bill, are put in black and white, the advocates of Unification will meet with the usual difficulties, which will probably lead up to a deadlock again.

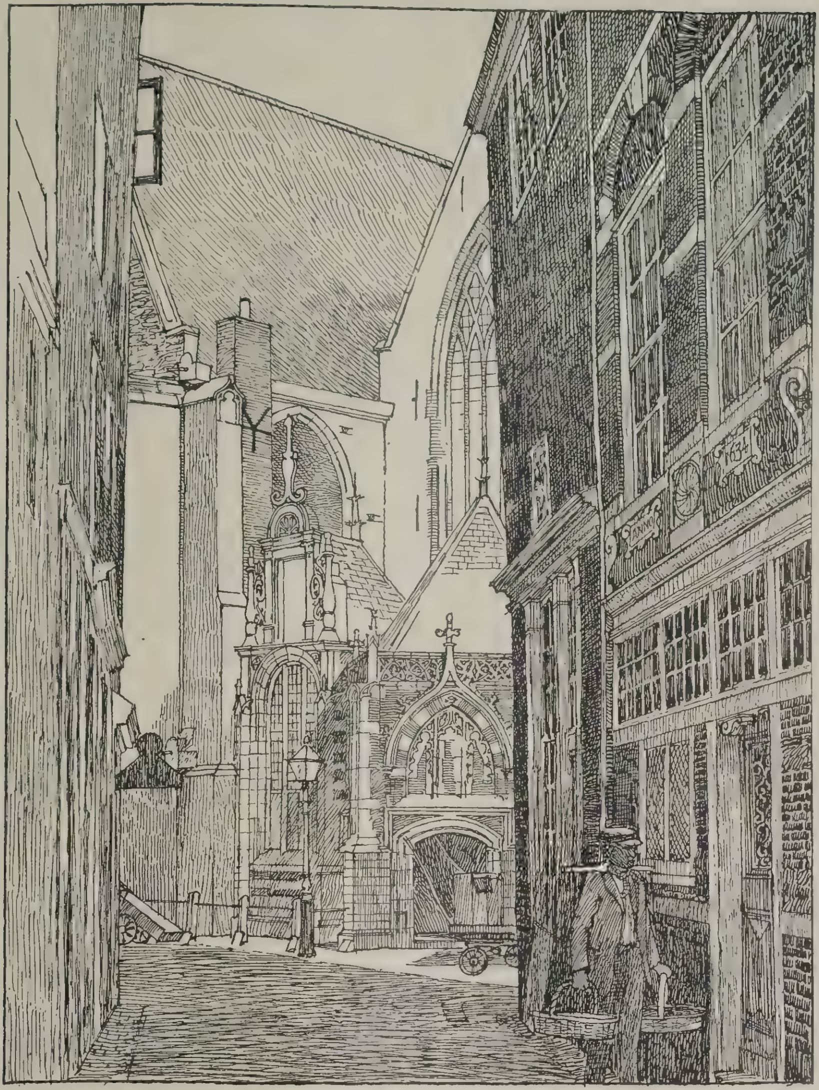
We are told in the Opposition circular that "the Institute has reached its premier position because it has always put these interests (interests vital to architects and to architecture) in the forefront and declined to permit any political issue such as Registration to obscure their importance." This undoubtedly sounds well, but is it entirely true, or does it not suggest the desire of a section to assume a virtue which it shares with others?

Undoubtedly the result of the forthcoming election may justify the "Opposition" in saying that it has appealed from Philip drunk to Philip sober, but in such a case it will not be the present Council which has been at fault, but the electorate itself.

It is open to that electorate to show itself as unstable as the wind, or, on the other hand, to allow the Council a year in order to carry through the definite programme which they endorsed last year.

The Opposition candidates, if elected, will, of course, justify the appeal they have made by assiduous attendance to the affairs of the Institute, which is fortunate in having so many distinguished men who are willing to help to extricate it from the sad position which it now finds itself in.

The question as to whether temporary buildings used in the construction of works are liable to be rated is to be the subject of an appeal in the High Court by the Cleveland Bridge and Engineering Co., Darlington, against a decision of the Durham Quarter Sessions.



OLD HOLLAND. By G. G. Wornum.

Notes and Comments.

Indian Engineering.

Our contemporary, "Indian Engineering," criticises Mr. Lanchester's paper on "Architecture and Architects in India," and is, as one might expect an engineering paper to be, somewhat distressed at the "Havellism" of Mr. Lanchester's views. Our contemporary is anxious to retain the old landmarks which divide Hindû from Mohammedan architecture, but a careful study of Mr. Havell's book has convinced us that his views are sound, and that there is a radical and absolute distinction between Mohammedan work in Egypt and in India, where the indigenous native style showed its influence not only in detail but also in general design. "Indian Engineering" is obviously contemptuous where pure Hindû art is concerned, though we should have said that both in the Dravidian temples of Southern India and in the work of the Jains and others in the North there is ample material to convince us that the indigenous Hindû styles possess great qualities and excellences of their own. We are not in a position to speak with authority of the possibility of employing the native master builders more generally, but as to this again we should be disposed, like Mr. Lanchester, to lean towards "Havellism." We are frankly ashamed of the architectural engineering of India from what we have seen and heard of it.

Architectural Criticism.

The criticisms of Bush House now appearing in the daily Press raise the question of the mental standpoint of the critics. Do they, when they write, assume that because a building is large and important it must possess merits which they therefore discover by a process of auto-suggestion? No one who has yet written has called attention to the fact that the various offsets of the design are unmeaning without the crowning feature shown in the model and in the preliminary design. No one makes any allusion to the fact that the design is dependent on the side building projected, but all critics join in praising the simplicity of the side elevations. We feel inclined to ask why? It is natural and reasonable to save unnecessary expense in elevations which will be flanked by other buildings in close proximity, but the critics appear to think the absolute bareness of the side elevations is a gain in itself. We again ask why and in what way?

The Lords and the Whitgift Hospital.

The House of Lords without a division have decided to strike out all clauses relating to the compulsory acquisition of the Whitgift Hospital. Lord Crawford, Lord Donoughmore and the Archbishop of Canterbury all spoke against the Bill, while Lord Buckmaster said that the attempt ruthlessly to destroy a perfect example of the sense of beauty, wisdom, and architectural skill of our ancestors was a matter which affected not merely the people of Croydon, but everybody who took an interest in the country's historical tradition. This was the only country in the world whose history was never systematically taught in our schools. Our history was absorbed, rather than taught, from old customs and old institutions with which we were brought into contact. Thus every child who passed the Whitgift Hospital learned that it represented the beneficent purposes of men who lived more than three hundred years ago. Surely it was no small stimulus to patriotism to have existing such a striking example of public spirit and good citizenship. The destruction of the building was by no means necessary for the commercial traffic. He wanted the Whitgift Hospital to stand where it had been built, to stimulate and encourage and elevate generations to come, as it had generations in the past.

The Flaxman Exhibition at University College.

The private view of the very interesting series of works by John Flaxman, left to University College by the sculptor's niece, Maria Denman, and now at last cleaned, restored and adequately shown, gives rise to the question How does Flaxman stand in the history of English sculpture ? Is he really, as Blake called him, the Sculptor of Eternity, or is he a mere back number, an artist whose interest is purely archæological ?

No one can deny that he can be very bad ; that his faces are sometimes vacuous, his draperies mean, his designs at once poor and pretentious ; no one, on the other hand, can deny that he can be a very great artist. No sculptor was more disastrously affected by the neo-Hellenic revival that followed on the publication of Winckelmann's discoveries ; " the sublime works of antiquity "—the phrase is his own—went to his head, and everything Greek was desirable, everything Renaissance an abomination. The famous Greek stele in the Villa Albani seems especially to have affected him ; he composed relief after relief in memory of English wives and mothers precisely on those lines ; he studied the pediments, the palmettes, and the acroteria of this and other works, and thought them as suitable for England as for the Athenian Ceramicus ; and he rarely made his imitations a success. He had to commemorate an Oxford Professor of Botany who went to Greece to study the flora of that region ; what more appropriate than to endow him with the hat and abbreviated cloak of Hermes, patron of travellers, give him a bunch of flowers to hold, and show him about to step into a boat to cross the sea to a temple on a distant island, to indicate that his Greek travels had brought about the illness of which he died ? Is this a caricature ? No, it is literally true, and the visitor to Bath Abbey may see the monument of John Sibthorp for himself, two studies for which—unrecognised in the catalogue but described on pp. 30 and 31—are at University College.

The same Hellenic prepossessions governs his stele to Lady Clarke at Tewkesbury, the model for which shows all its characteristics—the amphoræ, the palmette, etc., combined with the Faith and Charity of Christian tradition, a combination of which he is painfully fond. That Puckish Shakespearean critic, George Stevens, appears at Poplar, and in the model at University College, gazing at Shakespeare's bust, with the word " critic " in Greek to make everything sufficiently classical. Or he designs a couple of friezes for Covent Garden Theatre on the exact lines of the Lysicrates frieze in the British Museum ; or places a Greek lyre of the most primitive form at the base of a monument with a bas-relief of the Good Samaritan.

Yet for some inexplicable reason these things are better than his Gothicised designs, of which there are one or two examples at University College and in Salisbury Cathedral. He cannot manage Gothic detail, whether finials, foliage or angelic half-figures ; and his Faiths and Hopes are woefully bad. Now and again, however, his angels are fine ; those of the famous Mrs. Morley at Gloucester, a large model for which is at University College, are not ; but that on the tomb of Miss Lushington at Lewisham (model, cat. p. 17) is beautiful, that on the Petrie tomb in the same church—not represented at University College—a noble work of art.

Realistic works such as the Sir Isaac Pocock at Cookham (model, cat. p. 11) are badly composed, and now and again, as in the Captain Miller at St. Paul's (model, cat. p. 11), he deviates into the worst allegorical manner of the period. Here, as elsewhere, his absence of mastery over natural forms—the palm tree in particular is invariably a ghastly and only too prevalent failure—is very curious, and his lions are simply laughable ; his sense of design seems absolutely to desert him in such cases ; and it is distressing to meet with such nineteenth-century enemies as the Broken Column and the empty-faced Religion with the Cross. His female figures, again, mourning over urns, are like bad imitations of Bacon's worst works, and are full of stone-mason ingenuity.

Yet where he touches life itself—the life of his own day—he is really great. The Lady Fitzalans at Christchurch, Hants, is charming (cat., p. 20, No. 8 is an unnoted study for this work), and his Headmasters, John Lyons at Harrow (two models) and Warton at Winchester, have considerable artistic merit, touching the classical mould in which they are wrought with the realism of daily life. Very charming, too, is the group called Family Affection (cat. p. 9), part of a study for the monument to Countess Spencer at Brington, with its boy and girl of the period ; and his conscientious studies of Brahmins and Mussulmans for the monument of Sir William Jones have considerable merit, greater far than belongs to the Christian subjects from the Lord's Prayer which appear on the monument of the Baring family at Micheldever (cat., p. 4, No. 3), by the way, is one of these, and is well illustrated in Britton's " Fine Arts of England," though not mentioned as part of the work in the catalogue.

Flaxman's avowedly classical work is curiously little represented in the exhibition. There is his restoration of the Torso Belvidere in the Slade School, with its weak and faulty Hebe ; there is the singular group of the sisters of Phaethon about to be changed into poplars—complicated enough to make the sculptor's ridicule of John of Bologna absurd, and entirely devoid of the essential quality of outline ; and there are one or two good vases and classical plaques, besides one terrible relief of Mercury and Pandora, a design tolerable in an outline drawing, but lacking all the qualities of a relief. There is, too, of course, the great plaster model for the Michael overcoming Satan, the one work of Flaxman's high Christian imagination which can be compared with the famous groups of antiquity. The Michael is fine, but the body is spoilt by the same smoothness of modelling which injures the Apollo Belvidere, and which, on Winckelmann's authority, was long believed to characterise the ideal figures of Greek art ; the head, vigorous and powerful, recalls, especially in the original marble at Petworth, the head of Bernini's Apollo, though the comparison would have made the artist fume, and Bernini would never have descended to the weakness of the Satan.

On the whole, Flaxman is greatest where he is most eighteenth century in manner, as in the noble Mansfield at Westminster Abbey (model in the Soane Museum), the quite admirable bust of the 6th Duke of Bolton at Basing, for which cat., p. 21, No. 47, is an unrecognised study ; and the delightful model—inappropriately called a stele (cat., p. 17, No. 5)—for an eighteenth-century peer in Garter robes and in the attitude of an orator, with the Mace behind him, which, I venture to suggest, is a study for a proposed monument to Chatham, possibly a competing model for that erected by order of the House of Parliament in Westminster Abbey, for which Bacon was the successful competitor.

If the reader will study the models at University College and the Soane Museum, and—when possible—the originals, he will be in a position to judge of the various aspects of Flaxman's art, and see in how strange a manner Greek, Gothic and Christian elements mix and conflict in his work. Now he is like Blake, now like the eighteenth century, now an Athenian of the fifth century B.C., but always he is himself, a self compounded of many ingredients, but wholly a man of noble ideals, though without the power to always realise those ideals.

The Barnsley County Borough Council have instructed their surveyor to report as to a suitable site or sites and to submit comprehensive proposals for the erection of 250 houses at Barnsley.

Mr. J. A. Williamson, city architect, Edinburgh, has prepared sketch plans in connection with a proposal by one of the City Councillors that a terrace should be constructed on the south side of Princes Street. The plans show the existing pavement extended over the present sloping bank of the gardens, with a cenotaph in a central position. The existing statues are included in the scheme, and it is suggested that statues of Wallace and Bruce might be erected. The plans are intended merely to indicate the possibilities of the proposal, and the cost is estimated at upwards of £50,000.

Royal Institute of British Architects.

The twelfth general meeting (ordinary) of the session was held on the 23rd inst. at 9 Conduit Street, W., Mr. Paul Waterhouse, M.A., F.S.A., president, in the chair.

The Hon. Secretary said he deeply regretted to announce the death of the following members :—

Mr. Edwin Thomas Hall, elected Associate 1881, Fellow 1885. Was elected a Member of Council in 1893, and served almost continuously until 1912, and was a Vice-President during the Sessions 1905 to 1909. He was also a Member of the Practice Standing Committee from the year 1886 to 1898, and Chairman of the Committee from 1896 to 1898. Mr. Hall also served on the Board of Architectural Education from 1910 to 1913.

Mr. Joseph Douglass Mathews, elected Associate 1865, Fellow 1876, and transferred to the List of Retired Fellows at the end of last year. Mr. Douglass Mathews was a Member of the Science Standing Committee from 1886 to 1891, and a Member of the Practice Standing Committee from 1891 to 1911, and was Chairman of the Committee from 1898 to 1904. He was also a Member of the Statutory Board of Examiners from 1879 until 1922, and was Vice-Chairman of the Board from 1900 to 1909. He was a Member of the Council during the Session 1904–1905.

Mr. Harry Inigo Triggs, elected Associate 1899. Godwin Bursar 1906, was an Associate Member of the Council 1910 to 1912, and a Member of the Science Standing Committee, 1908–9, the Literature Standing Committee 1909–10, and of the Art Standing Committee, 1911–12.

Mr. Joseph Barker Daniel Wall, elected Associate 1876, Fellow 1889.

Mr. George Waymouth, elected Fellow 1885.

Mr. William Harrington Scrymgour, elected Associate 1881.

Mr. Arthur Kean paid a special tribute, which was supported by the President, to the good work and personal qualities of the late Mr. Edwin T. Hall.

Mr. W. G. Newton, M.C., A.R.I.B.A., then read a paper, of which we here give an abstract.

THEORIES, CLASSICAL AND ROMANTIC.

Writings on architecture divided themselves naturally into descriptions of the past, treatises on the present and those works which, based on the past and the present, peer into the future and try to arrive at principles, at a philosophy of architecture. When we think of these latter works, we think of the great tomes which adorned particularly the eighteenth century in our own country. Their authors seem overwhelmed by the large pages which the engraved plates demanded and lose themselves in a very wilderness of polysyllabic nonsense, of which perhaps Inwood's work on the Erectheum is as good an example as any. This kind of thing is still with us. There is no little danger in all such vagueness. It is worth while now and then to pause and for the profession to consider where they are going and what they are aiming at. For, like parsons, they are overcumbered with much serving. Running from committee to subcommittee, and from meeting to meeting leaves too little time for thought and for the exercise of that pondered skill which is, after all, their main title to consideration. Muddled ideas, muddled phrases and muddled standards of judgment are the consequences. As an instance of muddled phrases, take the word "classical." This should mean "of or belonging to a standard." Mediæval architecture was classical for Sir Gilbert Scott. The appeal of Roman architecture to the architects of the Italian Renaissance was all through less classical than romantic; less, that is, a reference to a standard of past achievement than a continual inspiration from a past of which they considered themselves the heirs, and with few or no restrictive covenants in the will. At the back of this confusion of thought is an equal confusion of phrase. And phrases are everywhere doing duty for thought. They are scattered about the critical writings. "Constructional function, scholarly, sumptuous, architectonic (that loud-sounding substitute for the simpler word 'architectural')," and in the colder jargon of the *atelier* "solution of programme." We have more words, but probably no clearer critical principles, than Vasari, the contemporary critic of the Italian Renaissance, who set the seal of public approval on San Micheli's great Venetian fortress, as follows: "Wherefore that fortress, besides being marvellous with regard to the site on which it is built, is also, from the beauty of its masonry and from its incredible cost, one of the most stupendous that there are in Europe at the present day." Vasari had a "Daily Mirror" mind. It is equally a danger to-day.

What architects are groping after is a standard of judgment, by which they can judge the works now being done, and which will colour their own mental processes in the travail of design.

It is unlikely, thought Mr. Newton, that it will be found. The whole question was subtle, complicated and elusive. The first essential was to clear away a number of fallacies. That had been done by Mr. Geoffrey Scott's "Architecture of Humanism"—a most pregnant and closely reasoned examination of architectural theory, and one which would no doubt have made a greater stir if it had not been published so near to the date of the outbreak of the war. Mr. Scott exposed in turn the Romantic fallacy, the Mechanical, the Ethical, the Biological, and the Academic.

There comes a moment in our reading of systems of philosophy when, after the author has demolished system after system till the ground is cumbered with the corpses of his predecessors, we take a deep breath, for lo! we have but to turn the page and our feet will be on the road that all these poor blunderers sought, and so convincingly failed to find. But, the lecturer said, he must not raise any such false hopes. And he thus summed up his conclusions arising out of Mr. Scott's treatment of the five fallacies :

> We have found, if you have agreed so far, that architecture neither speaks nor can be judged by the language of romanticism, and yet that the overtones of association cannot be excluded. "Like a ship forever asail in the distance, thought the child, everywhere the great church of Chartres was visible, with the passing light or shadow upon its grey weather-beaten surface." We have seen that its structural facts are not the all in all of its appeal, and yet to ignore the opportunity for emphasis which those facts afford is to deprive ourselves of a very potent weapon. We have seen that while architecture cannot be judged by moral standards, because that involves a confusion of thought, yet it must not be emptied of moral content, or walled away from the whole life of a man. We have seen that while it may only be misleading to classify it is impossible to appraise architecture by evolutionary standards. We have seen lastly that, though we cannot put architecture to the inquisition of an unyielding creed, nevertheless a creed may be valuable as an inspiration.

Having considered the question from the outside having been concerned with results, the lecturer proceeded to deal with the mental process leading to those results. Vitruvius gives his definition of the contents of architecture as being made up of six things. Four of these are external qualities, proportion, rhythm, symmetry, composition (with a sub-heading of drawing—plan, elevation and perspective), and two of them mental qualities, "meditation," which is "careful study, application, watchfulness, with delight," and "resourcefulness," which is the "solution of difficulties and vigorous reductions of new matter to order."

Some hold that beauty will grow out of function, as a submarine, an aeroplane, a ship are beautiful. But what are the functions of a house? Shelter, they say, and labour-saving devices and cleanness and sunshine and drains—or some such modern summary. But therein is not all. It might embody all these things and yet not be a home. A house must also be a background for the dreaming of dreams.

For Mr. Geoffrey Scott the key to beauty lies in humanism, and he says: "The spaces, masses, lines of architecture, as perceived, are appearances. These appearances are related to human functions. These masses are capable, like ourselves, of pressure and resistance; these lines might be our path, and our gesture. Thus the appearance of instability awakens in us a physical memory, the condition of spirit which accompanied some actual experience of our own thwarted effort, or incipient collapse. Or, on the other hand, we sympathise and identify ourselves with appearances which do not correspond to the structural facts, we soar with the spire, and are brooded over by swelling domes. The whole of architecture is unconsciously invested by us with human movements and human moods.

Interesting and suggestive as this theory is, said Mr. Newton, it is perhaps likely to be more help to the critic than to the creator, and to the philosopher than either. These obscure promptings lie perhaps somewhere at the back of things. But as yet we lack, what Mr. Scott too desires, a psychology of architectural form, a tabulated examination, that is to say, into the question of what exactly are the architectural forms that are employed in works that have given indubitable pleasure, and how, with variations in these, our pleasure also can be found to vary.

The problem of architectural form was peculiarly to the fore in the world to-day. Russia, in the recurring revolt against forms which are identified with a discredited past, is trying out of her inner consciousness to evolve an architecture that shall bear no relation to anything man has hitherto made, but shall somehow sum up the triumph of the idea of the electrically-driven proletariat State. Holland is discontented with old shapes and playing with her bricks in all manner of new ways. Germany, on paper at least, is experimenting with a new manner, where the function of the building is underlined by the shape, which is further to be conditioned by an unfettered use of the newer materials, steel, concrete and glass. Of these new modes of expression there are yet too few examples for adequate criticism. But behind them all seems to lie a certain hysteria from which, anyhow in theory, we are not ourselves free, of self-consciously striving to be "of to-day." With ourselves it takes perhaps more generally the view that we must not mislead posterity. With these other nations it is more a desire to make a clean sweep after the war. Posterity can take care of its own antiquarianism. We can never be other than ourselves. And is the world so very different, that we need a complete re-orientation?

It is no new world. But it lies with us in some degree to make it, with all the enthusiasm of the humanist, what we would have it. And to see a little more clearly through certain confusions and errors will help us on our way.

A great service has been done by that school of teaching which insists on a survey of all the factors of the problem; the digesting of all the needs, spiritual as well as material; the due balance of each against the other, as a preliminary before the conception can be allowed to take form in the mind. This is how, in fact, we work. Concentrating on that sense of shape, disposition, massing and spacing, which in happy moments seems to grow out of a mind saturated with the elements of the programme in its fullest sense. It is on this, the primary solution of the programme, that competitions are judged; and this has the odd outcome that buildings which were built, to put it unphilosophically, on account of the merits of their plan are for the rest of their life judged on the merits of their external appearance. But we deceive ourselves if we hold that it is absolutely so conditioned. The "plan" in its fullest sense, which includes all spacing and massing and shaping generally, only gives it a start, sets it out on a certain path. The dress is going to have an importance for ever after out of all proportion to its share in the original conception. It is all to the good that we should concentrate both in teaching and in practice on what we might call the general conception, the primary solution of the programme. Here there is a reasonable foothold, and canons of criticism can gradually be established. But always in our judgments we must be alert to appreciate the whole of the programme, the *besoins moraux* as well as the *materials*, the low voices of sentiment and tradition no less, in their due measure, than the clarion call of axis and mass.

The question of what we call style in architecture is indissolubly connected with the question of the general conception. The advantage of times when all men draw from one source is that they can say so much more. They are using a language understood. Language is a system of understood meanings, the currency of thought. But its meanings merge and change more swiftly in architecture than in speech. The instability of this language, of the values of associated content, will make us use it with caution, will drive us back, whether we are conscious of it or not, to a simplification of the style, of the idiom in which we have chosen in a particular case to work. We shall have fewer acroteria and more serenity; less fanaticism about mouldings and more quest of sheerness or mystery. And the necessities of our own time will contribute to this simplification. Where there is little to spend, effects will be simple. Perhaps a certain flatness and even grimness will grow naturally and gradually—not as the outcome of an ascetic mind, but arising almost of itself out of the materials at our disposal, and the craftsman's widespread ideal of tidiness and finish. Perhaps, as has been held, ornament will die out, as tattooing has.

Mr. Newton concluded as follows:—

> We shall not then be half ashamed of styles, but use them as a language, a difficult and shifting language indeed, but not without meaning. Only a master can use it aright, but we shall all try, and to use it so that we may speak to our fellows.
>
> But at the back of it all, and as the source of all our strength, we must keep in mind the permanent qualities of architecture, those that we sum up in the abstract phrases about mass and void and rhythm and line. This is the language in which our first conceptions are clothed. In this language we can speak to our fellow craftsmen, but not yet to our fellow citizens. And, above all, we shall be conscious of what I might call the "all-roundness" of architecture, its extraordinary privilege of taking a piece of space and making it its very own, of moulding the very envelope of this globe here and there to its own uses. Here the sun itself is our slave to cast shadows at our bidding, and the night comes to aid our mysteries or heighten our deliberate cosiness. Ours is a great privilege, to make the background of other men's lives. But to wield so potent a spell needs a master of magic. If haply here and there we fall less far short than we had feared, we may be well content.

Discussion.

Professor A. M. Hind, O.B.E. (Slade Professor at Oxford), in proposing a vote of thanks, said he particularly sympathised with Mr. Newton's lamentation at the commencement of his paper as to the bulk of the literature on art subjects. His own opinion was that in one sense it was far better after seeing a work of art to say "I like it," or "I don't like it," than to go into an analysis of it. At Oxford one is constantly concerned with men interested in the philosophy of art, but who knew very few works of art. He wished to express the gratitude of the University authorities to the Institute Board of Examiners for assistance in their efforts to establish the study of architecture in Oxford. The decision of the General Board as to the necessary money grants was expected within the next few weeks. If the grants were approved, the University would look to Mr. Newton to inaugurate the work.

Mr. Kitson seconded the vote of thanks, and said the paper was so full of meat he would not venture on any impromptu criticism.

Lord Justice Warrington, claiming the privilege of speaking as a layman, discussed the influence of local materials on local building. His own feeling was that there was no house like the house built in the early part of the eighteenth century, a plain square house with the best rooms looking one way. The beauty consists in the appropriateness of the style of the building for the purpose for which it was required. Lord Justice Warrington concluded with a personal tribute to the late Mr. Ernest Newton, and his son, the lecturer.

Mr. F. R. Hiorns, Mr. A. S. G. Butler, and Mr. W. E. V. Compton having also spoken,

The Chairman put the vote of thanks to the meeting, and it was carried by acclamation.

Mr. W. G. Newton briefly responded.

A special general meeting will be held on Monday, April 30, at 8 p.m., to consider the proposals of the Council for the revision of the Charter and Bye-Laws, and to consider proposals for the adoption of an academic dress for Members and Licentiates.

The annual general meeting will be held on Monday, May 7, at 8 p.m., when a discussion on the annual report of the Council and Standing Committees will take place.

The following are notes from the minutes of the Council Meeting held on April 9.

Revision of Charter and Bye-Laws.—It was decided to summon a Special General Meeting on April 30, for the purpose of considering the revision of the Charter and Bye-Laws, and also of proposals for the adoption of an academic costume for members of the R.I.B.A.

Reinstatement.—The following ex-members were reinstated:—As Fellow, Alfred Arthur Cox; As Associate, J. W. Cockrill; As Licentiate, K. B. Spurgin.

National Association for the Prevention of Tuberculosis.—Mr. Edwin T. Hall and Mr. Rupert Savage were appointed to represent the R.I.B.A. at the Ninth Annual Conference of the National Association for the Prevention of Tuberculosis at Birmingham in July, 1923.

Competition News.

The Greenwich Borough Council invite architects practising in the United Kingdom to submit designs in competition for the public swimming baths, etc., proposed to be erected in Trafalgar Road, East Greenwich. The Council have appointed Mr. Henry V. Ashley, F.R.I.B.A., to act as assessor. Premiums of £300, £200 and £100 are offered for the designs placed first, second and third respectively. Conditions of the competition, together with a plan of the site, can be obtained from the Town Clerk on and after April 30 on payment of the sum of £2 2s.

The Building Committee of the Baptist Church, Leigh-on-Sea, invite plans for a new church proposed to be erected on Pall Mall site. Full particulars may be obtained from Mr. E. W. Warren, "Eversley," Dawlish Drive, Leigh, Essex.

The Haifa Business Centre Competition Committee informs its competitors that (*a*) the period for sending in the plans has been extended to June 1, 1923, as it has been found that the previous date fixed for the sending of the plans would be too short for competitors residing abroad; (*b*) instead of the four prizes originally decided upon, there will now be three, as follows: First prize, £E75; second prize, £E50; third prize, £E25. A bonus and other advantages will be given, at the discretion of the adjudicators, to the competitor whose plans will be accepted.

Owing to an inadvertence Clause E of the R.I.B.A. Regulations was omitted from the Conditions of the Tunbridge Wells Pavilion Competition. The R.I.B.A. and the Assessor have been in consultation with the promoters and it has been decided that, in view of all the circumstances, Members and Licentiates may compete on the conditions as published.

During the next twelve months Hatfield Main Colliery propose to erect over 300 more houses at Stainforth, where a total of 1,500 is to be erected. The scheme is being held up until the Government plans are divulged.

Housing, etc., Act, 1923 : A Critical Examination and Suggested Amendment.

By E. G. Trobridge, Architect.

Inasmuch as the new Act is a temporary measure and incorporates the provisions of Acts dating back over 30 years, it is difficult to quickly appreciate its scope. However, some striking new features are obvious. (1) Refund of rates. (2) Guarantee of principal and interest in respect to mortgages advanced by building societies, individuals, etc. (3) The compulsory sale of land to private parties for building their own houses. (4) Further revocation of bye-laws.

All these four features are great advances, but the Act makes it appear that they will not be made effective. There is too much of the " may " about them. Nevertheless, they may be very great strides forward.

In spite of the advance the above features indicate, I have no hesitation in stating that this Act might be referred to as an Act Against House Building.

The inducements offered to local authorities to build appear ludicrously small and conditional, and are less than those offered to private enterprise. This lack of encouragement is probably good, as it is very doubtful if it is wise for local authorities to become landlords of those who elect them.

My own experience of such authorities is that they are quite tired out with the endless limitations of the old scheme. Under these circumstances reduced help and added limitations of the new scheme will produce nothing of consequence in these quarters.

The private builders, still smarting under the fraud of the cancellation of subsidies, and with unpleasant memories of endless restrictions, bad laws, and innumerable authorities, will, I am sure, look very shyly at the new Act with its new set of irritating limitations and numerous and various conditional promises. Finance cannot rest on such a bed. Nevertheless, the Act contains great possibilities, and if its framers would wipe out almost all its restrictions and conditions, and make its stipulations more like those of ordinary business and less like those of minute class legislation, great results might arise.

If the Government could only take a broad view of the case. The public want houses and cannot get them. Why? Because they lack capital. The building trade want employment and not doles.

Forget that there is a working class. Divide the public into two sections : those with capital and those without. It is the latter who lack houses ; of these probably 75 per cent. are good for their rent ; if that is so they can buy their houses provided the repayment and interest does not exceed about £1 per week. If 75 per cent. of the uncapitalised classes owned their own houses there would be plenty of houses to let for the remainder at reasonable rents.

The Government are about to lash the dead horse, " Houses to Let," although no person would be a landlord to-day if they could avoid it. Landlords have been made to look like the lepers of commerce. They have been reviled by the Government, the Courts, and the tenants, and legislated into insolvency. Such attitude and actions have brought about the condition that the tenant must be the owner, and the owner should not expect others to provide him with a house. Let the Government only undertake to finance the solvent section of the houseless in a bold way, and I am strongly of opinion that all the houses wanted would be forthcoming at once and without loss to the Government.

Another most important consideration. Our existing bye-laws have caused to come into existence an awful inheritance of slums. The new scheme is proceeding along similar lines, and thus increasing the slum evil. It is quite impossible to solve the housing problem with constructions which have a life of only 60 years. There are plenty of constructions which last from 300 to 1,000 years, which are as cheap to build as the standard construction, but condemned by bye-laws. For about 150 years our legislators have failed to see that the fire risk is not against life but money, and the latter can be best protected by insurance and not by condemning healthy, dry, beautiful and lasting construction. Surely an insurable risk is better than a certain slum in 60 years.

There are clauses which appear to fix the maximum size of any house under the Act at 780 superficial feet, yet the price is permitted to be £1,500 for such house, which seems a very heavy possible price.

The area fixed practically excludes the possibility of parlours. This is much to be regretted, as all over the country Councils find they cannot get their rent if they do not permit lodgers, and this is the only type of house which permits this without overcrowding.

A Bill framed roughly as follows would, I feel, be in accord with ordinary business methods and in the usual channels of house building finance :—

(1) Right to appeal to the Ministry of Health against any bye-laws or restrictions on land. The Ministry's ruling to be given within seven days (summary action is justified, inasmuch as districts without bye-laws seem to be quite as healthy as those with the most rigid).

(2) The local authorities, if called upon, to find land at reasonable figures for private house building. (The power to buy land where suitable at a reasonable figure was a strong feature of the last Housing Scheme.)

(3) Housing to be financed through building societies, local authorities, assurance companies, and all parties who are in a position to grant long term reducible loans. (*a*) Houses approved for mortgage must have approximately a life of at least 300 years. (*b*) All forms of domestic housing (including shops with flats over under certain circumstances) to be entitled to mortgages, and while there would be no limit to size the mortgaging authorities would have the right to decide the proportion of cash the purchaser would have to find in connection with large houses. (*c*) The mortgaging societies, etc., to receive 1 per cent. above Bank rate (minimum 5 per cent.). This sum is to include their profit and overhead charges. The term for repayment to be 25 years reducible at the option of the borrower. The amount of mortgage to be 95 per cent. of the total cost. (*d*) Advances during construction to be made up to 75 per cent. (including cost of land) on architect's certificate, the borrowers paying £1 1s. each for same. (*e*) The Government to strengthen the mortgaging authorities by guaranteeing them against loss of capital and interest above 66 per cent. of the cost of the house and land. The mortgaging authority must, however, be in possession of the security 12 months before making any claim. (*f*) The Government shall arrange to supply the mortgaging authorities with additional capital and adjust their business so that they shall not be adversely affected by the extension of repayments and increased proportion of amount advanced.

(4) All houses built under this scheme shall be rate free for ten years and no road charges shall be chargeable for a like period.

(5) The Government shall give 18 months' notice of its intention to cease to be party to the financing of further housing through the mortgaging authorities.

The purpose of the foregoing proposals is to finance housing through trusted and understood channels, to enable single plots of land to be obtained by intending owners, and thus prevent the control of small houses remaining in the hands of the slum purveying jerry builders, and to provide houses of long life.

The quality of this scheme would be tested by the number of foreclosures. If the latter were too many the Government might grant relief of interest, and, under some circumstances, grant extension of time or compassionate grants off the principal. I, however, think that the number of insolvent foreclosures would be very small indeed.

Let the Government be assured that all the new houses would be gladly taken up if they, through the mortgaging authorities, provided 95 per cent. of the capital by the uncapitalised classes, and the latter would be quite prepared to pay over a long period the principal and interest, and pledge their solvency through the personal covenant of the mortgage to complete their bargain, and thus contribute their share in making England a place fit to live in.

It must be obvious that housing cannot progress while the building societies are, as at present, advancing much smaller amounts, shorter terms, and higher interest than they used to.

If it is true that a man who can put £50 cash, including his costs, into a house and pay £1 1s. per week in repayment and interest can provide a house at no loss to the Government, it also true that no amount of regulations will enable him to put more than £50 cash into the house. We are here up against the cardinal fact that practically all the capital for the uncapitalised classes must be lent to such house owner.

The other great point is that housing schemes cannot succeed with houses which only last the period of their sinking funds—viz., 60 years. More permanent constructions must be used because most housing areas remain such.

It is to be noted that the management of the mortgages and the litigation relevant thereto is not in the Government hands, but in those of the mortgagees, and thus very few officials would be required.

Reading Society of Architects.

The third annual meeting of the Reading Society of Architects, which is the Berkshire branch of the Berks, Bucks and Oxon Architectural Association, was held at University College, Reading, when there was a good attendance of members and friends. The chair was taken by the Deputy-Mayor of Reading (Mr. W. Roland Howell, F.R.I.B.A.).

The hon. secretary (Mr. C. B. Willcocks) read the annual report, dealing with the work of the executive during the past year, in which it was stated that the total strength of the society is now 100 members, made up as follows: 46 Fellows, 7 Associates, 27 Students, 10 Associated Craftsmen, and 10 Honorary Members.

The following members were elected to form the executive committee for 1923: Chairman, Mr. W. Galt Millar, F.S.I.; vice-chairman, Mr. W. R. Howell, F.R.I.B.A.; hon. librarian, Mr. H. W. Rising, F.R.I.B.A.; hon. treasurer, Mr. J. H. Goodman, Lic. R.I.B.A.; hon. secretary, Mr. C. B. Willcocks, F.R.I.B.A.; members, Messrs. C. S. Smith, F.R.I.B.A., W. R. Morris, Lic. R.I.B.A., J. R. Greenaway, F.S.I., and W. J. Freeman, A.R.I.B.A.

Mr. W. R. Howell then vacated the chair, and his place was taken by the new chairman (Mr. W. Galt Millar), and the meeting proceeded to elect the following representatives of the society to serve on the council of the Berks, Bucks and Oxon Architectural Association: Mr. C. S. Smith, F.R.I.B.A., Mr. W. R. Howell, F.R.I.B.A., Mr. F. H. Floyd, F.R.I.B.A., Mr. H. W. Rising, F.R.I.B.A., Mr. C. B. Willcocks, F.R.I.B.A., Mr. F. Woods, A.R.I.B.A., and Mr. W. R. Morris, Lic. R.I.B.A.

Mr. W. Galt Millar was nominated for election as vice-president of the Berks, Bucks and Oxon Architectural Association.

Mr. Herbert Maryon, Associate of University College, Reading, gave a lecture, illustrated by lantern slides, on "The Place of Sculpture in Relation to Architecture."

Correspondence.

The Housing Tragedy.

To the Editor of The Architect.

Sir,—In your issue of the 20th a firm interested in waterproofing cement have written to the effect that the grave defect of modern 9 inch brick houses might be obviated if materials such as theirs were used.

I would point out, however, that many of these houses are not rendered with cement and neither is the cement mortar, and, further, it is to be noted that more of these waterproofing processes have not been in existence sufficient time to indicate that they can be offered as a solution in connection with the rapid decay of damp houses.

The cost of waterproofing buildings, even if it were possible for a long period, would not be agreed to officially, and the enforcing of such regulations would be very difficult.

I venture to reaffirm that the 9 inch brick house is a totally unsound construction and grossly wasteful in both money and health.—Yours faithfully,

E. G. Trobridge.

Hayland, Ferndene, Kingsbury, N.W.9.

Re "Who's Who in Architecture," 1923.

To the Editor of The Architect.

Sir,—From the heavy returns of completed forms which have been received for this book, it is evident that architects generally realise the great advantages that will be gained by its production, and the assistance which such a work of reference and professional information must render.

Its importance to the lay public and the lay press hardly needs emphasising, but, as editor of the work, I should be grateful if I might draw the attention of your readers to the fact that if anyone is omitted from it through neglecting to send in his form, the fault must not be visited upon me.

The active co-operation extended to the publication by the R.I.B.A., the Society of Architects, and the Architectural Association, in conjunction with the publicity which these and other professional bodies have sanctioned, sufficiently indicates the prestige of the work, and inferentially its representative character.

I am anxious to get this book published at as early a date as possible, and if any of your readers have not received forms, or have mislaid them, I shall be happy to send fresh ones by return of post to all who apply for them.

Yours faithfully,
F. Chatterton, F.R.I.B.A.,
Editor, "Who's Who in Architecture."

27 Tothill Street, Westminster, S.W.1.
April 23, 1923.

Bye-Law Amendments.

To the Editor of The Architect.

Sir,—May I, as one closely interested, express the hope that you will lend your valuable editorial support to Clause 13 of the Government's new Housing Bill, which will give the Minister of Health power to revoke obstructive building bye-laws.

London architects, and London readers of the newspapers, may not appreciate the full significance of the proposal, but those of us who have had more to do with buildings in the provinces than in the metropolis will unite in wishing this clause a speedy passage into law.

The clause follows the unanimous and emphatic recommendation of a Committee which reported in 1918, having been appointed in 1914 by Mr. Herbert Samuel to consider what steps the Government could take to relieve the building trade and the architectural profession from the burden of unnecessary bye-laws.

The Chairman of that Committee is now senior Vice-Chairman of the Labour Party, and it contained leading members of the Conservative and Liberal parties in the House—so there should be no room for party opposition. The report was also unanimous on the part of the direct representatives of all the associations of local government authorities, and the various housing experts and representatives of other interests who made up the balance of the Committee.

The Committee found that the thing most urgently required to relieve the public from obsolete requirements was just what the Government are now at length proposing, viz., a simple clause to cure the proved defects of Section 44 of the Housing Act of 1909, whose principle was accepted by all parties in the House.

As will be seen on reference to Hansard for 1909 (volume X, column 1655), Mr. Burns, the Minister in charge of the Bill of that year, put in Section 44 at a late stage, in place of one drafted by Lord Robert Cecil, and supported in principle by Mr. (now Sir) J. F. Rawlinson, Sir Courtenay Warner, Mr. Fred Maddison, and other representatives of all three parties. These included Colonel Guinness, the Chairman of the Housing Committee of the L.C.C., and Sir John Harmood Banner, a prominent member of the Association of Municipal Corporations, who became Lord Mayor of Liverpool in 1912. No proposal was ever given more authoritative support in principle, but unfortunately Mr. Burns' hastily drafted clause was found by his own Department to be unworkable, and architects and builders have had to wait fourteen years for Parliament to put the matter right.

However they may differ on the remainder of Mr. Chamberlain's Bill, they will assuredly unite in thanking him for this clause, which will be a step of prime importance towards reviving private building.—Yours faithfully,

E. M. Webb.

54 Ashcombe Road, Weston-super-Mare.
April 18, 1923.

The Society of Motor Manufacturers & Traders, Ltd., 83 Pall Mall, S.W., have decided to organise, from November 22 to December 1, 1923, in Olympia, an Exhibition embracing not only the various types of commercial motor vehicles and their components and accessories, but also plant, machinery and materials used in the construction, maintenance and development of roads. The Society invite applications from intending exhibitors.

The Housing Bill.

To the Editor of The Architect.

Sir,—I am instructed to send you herewith the suggestions of the Federation for the amendment of the Housing Bill which comes before the House of Commons on Tuesday next for the Second reading.

The Bill is a good one, and if it is amended in accordance with the enclosed suggestions it should prove of great national importance.

The provisions of the Bill limit the cash subsidy to houses not exceeding 850 superficial feet (floor area) which confines it to the smaller type of cottage without a parlour, but it is the experience of the members of this Federation that there are thousands of deserving and thrifty citizens who are prepared to purchase their own houses if they can secure a house which will provide the necessary accommodation of a comfortable home. This can be done in a house of 1,000 feet floor area, and the extension of the grant to houses of that size will be an enormous boon to the class referred to. The guarantee to building societies should enable anyone with from £50 to £100 of ready cash to secure a house, and the regulation of the assessment as suggested would bring the necessary outgoings on a small villa type of house within the means of any thrifty citizen however humble his circumstances.

It is regrettable that the main principles of the Bill are permissive instead of being obligatory on the local authorities, but we must rely upon the pressure of public opinion to supply the motive power to the respective local councils.

We shall be much obliged if you can give publicity to the enclosed suggestions.—Yours faithfully,

Norman McKellen,
Secretary.

The National Federation of House Builders,
57/59, Victoria Street, Westminster, S.W.1.

THE NATIONAL FEDERATION OF HOUSE BUILDERS

Housing etc. (No. 2) Bill, 1923.

The General Committee of the Federation have very carefully considered the provisions of the Bill, which are chiefly designed to extend assistance to private enterprise in the erection of houses for the working classes. The Committee would draw attention to the following matters which, in the opinion of the house building trade, should be treated as additions or amendments to the Bill before it becomes law.

(*A*) The Subsidy.

1. The size of the house upon which the Government grant is to be given is fixed at a maximum of 850 superficial feet (presumably total floor area), Sec. 1 (2). Under this limitation a builder cannot erect a house containing a parlour, kitchen and scullery without making the rooms too small to be convenient, and consequently will be compelled to build houses without parlours. The house builder can only build to sell, and the market under present conditions for houses is confined to those which attract an owner occupier; a non-parlour type of house will not do that. There is a very large and insistent demand from persons who require a small house containing a little more accommodation and who are prepared to purchase them for their own occupation. The Federation suggest the maximum under the Bill should be raised from 850 to 1,000 superficial feet of floor area for two-storeyed houses with a corresponding increase in the limit for flats, etc.

2. The Bill gives local authorities the power to assist private enterprise by making grants, Sec. 2, but it does not specify the amount of the grant. The Federation is informed that the local authorities have agreed with the Ministry of Health, in cases where they are extending assistance to private enterprise, to add an equal amount to the State Grant from the local rates and to use the combined sums for that purpose. In the opinion of the Federation the Bill should stipulate that the local authority shall add an equal amount to the State grant in order that the tenant or owner of new houses within the scheme shall receive the benefit of both sums.

3. The Bill, Sec. 2 (1), provides for each local authority to submit proposals to the Minister containing the details of their schemes for the assistance of private enterprise. Under these conditions various local authorities may submit schemes containing different proposals which will lead to much extra work and confusion. The Federation suggest that a standard system should be drawn up by the Ministry for the guidance of the local authorities which will form a basis, subject to adjustment for local conditions, for all authorities. The following main principles should be included in the standard scheme:—

(*a*) The grant to be the capitalised value of the State grant plus an equal grant from the local rates.

(*b*) The grant to be paid to the owner of the house on the issue of the usual habitation certificate.

(*c*) The layout of the land to be approved by the local authority and the density not to exceed 20 houses to the gross acre of land including roads, etc., except in the case of plots of land in developed areas where similar layout to adjoining land may be adopted if not unduly congested.

(*d*) The final make up of the roads to be in accordance with the specification to be prescribed by the Minister under Section 12 (1) of the Bill.

(*e*) Where the private builder purchases land from the local authority the authority to agree to purchase from the builder a proportion of the houses built on that land, not exceeding 75 per cent., at a figure agreed upon beforehand if called upon to do so by the builder. The price fixed for the sale of the houses to the local authority would be less than the current market value. (This clause would only come into operation when the land belonging to the local authority was not ripe for development, and consequently private sales could not be readily effected.)

4. It is suggested that all houses in course of construction on April 11 for which habitation certificates have not been issued prior to that date which conform to the conditions shall be eligible for the subsidy. This will enable a builder who has houses in course of erection to give the benefit of the subsidy to his customer.

(*B*) Houses to £1,500 Value.

1. The Bill contains provision for the advance of capital to persons constructing houses and contemplates the submission of schemes by the local authorities to the Minister. It is suggested by the Federation that the Minister should draw up a standard scheme which would be generally applicable to all cases, providing:—

(*a*) For the interest to be charged at a rate of one half per cent. above that at which the local authority borrows the money.

(*b*) Embodying a fixed scale of charges for legal costs, surveyors' fees and other necessary expenses.

(*c*) The transfer of the mortgages to the purchaser of a house on occasion of sale.

2. The guarantee to a building society, it is suggested, should also apply to any society or similar body advancing money on terms of repayment by instalments and the following principle is suggested:—

(*a*) The local authority to enter into agreements with established building societies or other similar bodies, under which the society will advance to a purchaser for his own occupation 90 per cent. of the reasonable selling price of a house, on 20 years' repayment terms on a basis of 5 per cent. interest per annum, and the local authority will guarantee to refund any loss by failure of the borrower to maintain his repayments, the guarantee to expire when the amount outstanding is reduced to two-thirds of the original loan.

3. In order to enable those persons who are debarred from purchasing houses by the heavy assessment for local rates and property tax, it is suggested that all new houses not exceeding £1,500 in value which are completed after April 11, 1923, shall be assessed for local rates and property tax on an amount not exceeding the assessment of pre-war houses in the same district giving similar accommodation.

"The Architect" Fifty Years Ago.

April 26, 1873.

Sir William Tite.

This distinguished member of the architectural profession died on Sunday last, at the ripe age of 76, and he leaves behind him not many, although still a few, of those who were his colleagues and rivals in the foremost rank of the profession thirty years ago.

At that time there were five of such leading men upon whom the eyes of their juniors were particularly fixed. In order of seniority these were Sir Robert Smirke, Professor Cockerell, Professor Donaldson, Mr. Barry, and Mr. Tite. The first represented the serenity of supreme success in practical business; the second a certain universal honour which was all his own in the field of art; the third an indefatigable energy of action and unlimited versatility of study, which had perhaps done more than all else to accomplish the dignified unification of the profession in England; whilst in the fourth we had the rising genius of the Palace of Westminster, and in the fifth the assertive power of the greatest "City man" the profession had ever produced.

The congregation of St. David's United Free Church, Kirkintilloch, have accepted an offer to erect a new church by Mrs. Thomson, Greenfield, Alloa. The church, which will have accommodation for 640 persons, is to be built on the site at present occupied by the manse, and will consist of nave, side aisles, and transepts. A feature of the church will be a tower and spire rising to a height of 120 feet.

Sheffield Society of Architects.

The annual general meeting of the Sheffield, South Yorkshire and District Society of Architects and Surveyors was held at the Sheffield University on April 19, the President (Mr. J. R. Wigfull) in the chair. An apology for absence was received from Mr. C. M. Hadfield. The minutes of the last meeting were read and confirmed. A letter was read from Mrs. Innocent thanking the Society for the vote of condolence which the Hon. Secretary was instructed to convey to her on the death of her son (Mr. C. F. Innocent).

Mr. A. Lowcock was elected an Associate member of the Society.

The annual report was read and approved on the proposition of Mr. A. F. Watson seconded by Mr. W. J. Hale.

Mr. A. F. Watson moved that the Treasurer's Statement of Accounts which was read should be adopted, and Mr. Watson proposed and Mr. Inott seconded that Mr. H. Webster and Mr. H. Nowill be appointed auditors.

The following officers were elected:—President, Mr. J. R. Wigfull; Vice-President, Mr. H. L. Paterson; Hon. Treasurer, Mr. R. Fowler; Hon. Secretary, Mr. H. B. S. Gibbs. Council:—Fellows, Messrs. E. M. Gibbs, W. C. Fenton, W. J. Hale, C. B. Flockton, A. F. Watson, W. G. Buck, F. E. P. Edwards, C. M. Hadfield, J. R. Hall, E. M. Holmes, H. I. Potter. Associates, Messrs. J. M. Jenkinson, J. C. P. Toothill, F. H. Wrench.

Mr. Wigfull, the President, in the course of his address, criticised the proposed War Memorial, referring to the unsuitability of an obelisk for the particular site suggested, which he thought was a very unfortunate choice. He also referred to the fact that no Sheffield architect had been given an opportunity of competing.

Several suggestions were later put forward for a summer excursion including Leicester, Lincoln, Stamford, Peterboro' and Crowland, and it was decided to elect a sub-committee at the next Council meeting to deal with the matter.

Prices of Building Materials.

The Minister of Health announced recently in the House of Commons that in conjunction with the President of the Board of Trade he intended to set up a Committee with the following terms of reference:—

" To be a Committee to survey the prices of building materials and to receive and consider complaints in respect thereof and to report from time to time to the Minister of Health and the President of the Board of Trade as to the facts, and in particular as to the extent to which in any case the price appears to be unduly high by reason of the operation of any trade combination, trust or agreement."

The Committee will be constituted as follows:—

Sir Halford Mackinder, Chairman.

Mr. A. V. Alexandra, M.P. for the Hillsborough Division of Sheffield, and Secretary of the Parliamentary Committee of the Co-operative Congress.

Sir Theodore Chambers, K.B.E., F.S.I., Chairman, Welwyn Garden City.

Sir Charles T. Ruthen, Director-General of Housing, Ministry of Health.

Mr. R. Coppock, General Secretary National Federation of Building Trades Operatives.

Mr. Stephen Easten, Late President of National Federation of Building Trades Employers.

Mr. E. R. Eddison, of the Board of Trade.

Mr. George Hicks, President National Federation of Building Trades Operatives.

Mr. J. Stanley Holmes, Chairman of the Departmental Committee on the High Cost of Building Working Class Dwellings which reported in 1921.

Mr. W. T. Lancashire, City Engineer of Leeds. President-Elect of the Institution of Municipal and County Engineers.

Lieut.-Colonel Cecil B. Levita, C.B.E., M.V.O., J.P., Chairman of the Housing Committee of London County Council.

Mr. D. Ronald, of the Scottish Board of Health.

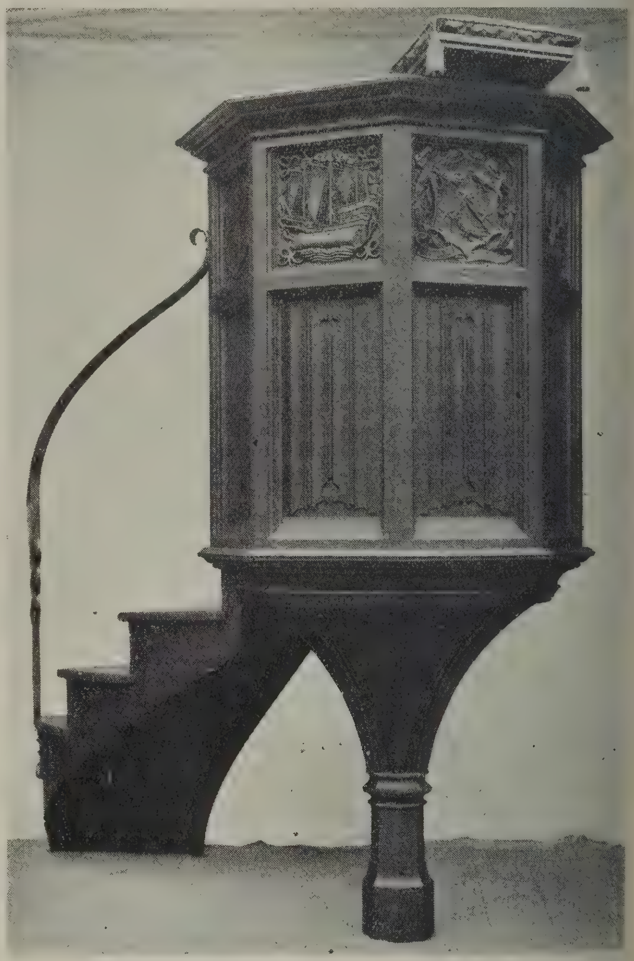
Mr. J. Walker Smith, of the Ministry of Health.

The Secretary of the Committee will be Mr. T. H. Sheepshanks, of the Ministry of Health, Whitehall, S.W.1, to whom all communications should be addressed.

Sir Halford Mackinder, the Chairman of the Committee, was formerly the Director of the London School of Economics and Political Science. He has also had a successful business career as chairman of a chemical company. As a member of Parliament he first attracted general notice by a speech which led to the appointment of the Montague Committee, of which he was a member, and the inauguration of the War Savings Certificate movement. He was also one of the chairmen of Standing Committees in the House of Commons, and presided when the Railway Bill, constituting the four groups, was under consideration. His other public work includes membership of the Statutory Committee under the Non-Ferrous Metals Act, which dealt with the case of the famous Metalgeselschaft; of the Royal Commission on the Income Tax and of the Colwyn Committee which reported on the compensation to be paid to railways after the war, and he was British High Commissioner in South Russia in the winter of 1919-1920. For the last three years he has been chairman of the Imperial Shipping Committee, whose report it is understood is likely to effect considerable changes in the methods of conducting shipping business. Two months ago he intervened successfully to prevent a rate war which was on the point of breaking out in the Australian shipping trade.

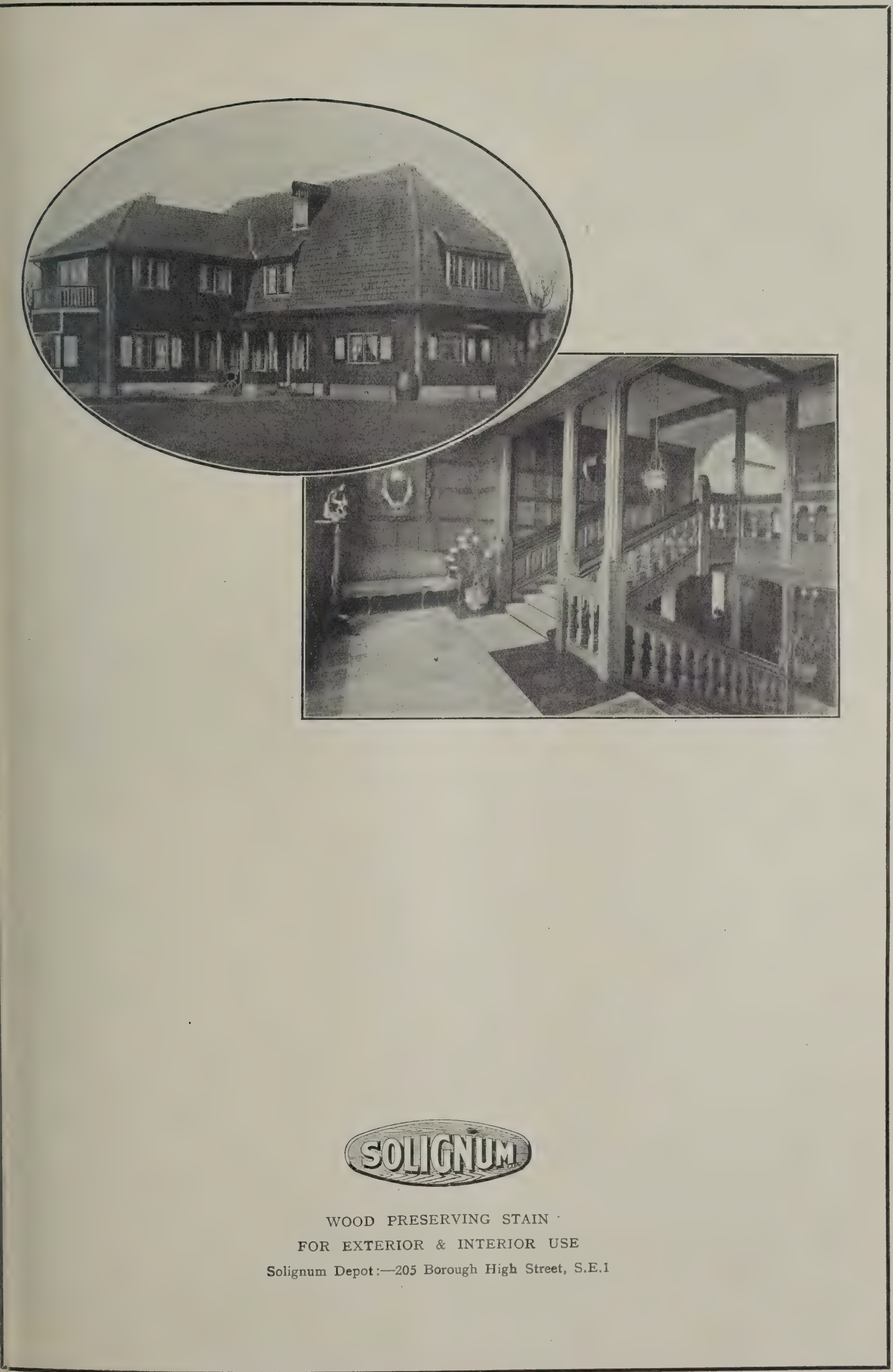
Oak Memorial Pulpit in Shalford Church, Surrey.

The pulpit forms a memorial to a naval officer, killed in action, and the central upper panel contains his Coat Armour. Upon either side of this are panels containing ships, and the two outer panels contain the arms of the province (Canterbury) and the diocese (Winchester). These five upper panels are carved in deep and extremely lively relief. Upon the upper portion of the sixth side of the pulpit, which, as it is not seen from the body of the church, is plain, a memorial inscription has been incised in delicate Roman letters, gilded. The tone of the finished oak is very dark, the effect being cool and pleasing. The work has been carried out to the designs of Mr. W. H. R. Blacking, M.S.A., of Guildford, by Messrs. J. Wippell & Co., Ltd., of Exeter and London, and is an excellent example of West-Country craftsmanship.



Stowe House, Buckingham, the former home of the Duke of Buckingham and Chandos, will be opened as a public school for boys on May 11. The architect is Mr. Clough Williams-Ellis, of 22 South Eaton Place, S.W. The constructional and decorative work has been carried out by W. H. Gaze & Sons, Ltd.

The Ecclesiastical Commissioners have purchased from the Liverpool Corporation a commanding site on Mather Avenue, Allerton, for the erection of a new church, vicarage, etc. The formation of a new parish for this district is primarily due to the large influx of population, which will probably reach 10,000 when the Liverpool housing scheme is completed.



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Forthcoming Events.

Friday, April 27.—London Society. Visit to Westminster Abbey. 2.30 p.m.

Royal Sanitary Institute. Sessional Meeting at Guildford.

Institution of Municipal and County Engineers. Joint meeting of the Eastern and Metropolitan Districts at Boxmoor.

Monday, April 30.—Royal Institute of British Architects. Special general meeting at 9 Conduit Street, W., to consider proposals for (1) revision of the Charter and Bye-laws, and (2) the adoption of an academic dress. 8 p.m.

Wednesday, May 2.—Royal Archæological Institute. Meeting at the Society of Antiquaries, Burlington House, W. Paper by Dr. Philip Nelson, M.D., F.S.A., entitled " Additional Examples of English Mediæval Alabaster Carvings." 5 p.m.

Thursday, May 3.—Town Planning Institute. A dance at the R.I.B.A. Galleries, 9 Conduit Street, W. 10 p.m.

Institution of Sanitary Engineers. Meeting at Caxton Hall, Westminster, S.W. Paper by Dr. W. R. Hadwan, M.D., etc., entitled " The Relationship between Insanitation and Disease." 6.30 p.m.

Friday, May 4.—Town Planning Institute Paper by Mr. Warwick Draper, M.A., entitled " The Law Relating to Town Nuisances." 6 p.m.

General.

The will of Mr. William Longden, of Wadsley Grove, Sheffield, builder, has been proved at £41,715.

The Upper Ward District Committee of the Lanarkshire County Council last week approved the recommendation of a sub-committee to erect an infectious diseases hospital at Road-meetings, Carluke, at a cost of something like £30,000.

Leicester Housing Committee have made application to the Minister of Health for sanction to a loan for the erection of 114 houses of non-parlour type at an estimated cost of £37,446, and 179 houses of the parlour type at an estimated cost of £78,132.

Plans have been prepared for a main road bridge at Rotherham, to be constructed 70 feet wide in concrete, at an estimated cost of £25,000, to replace the present narrow structure which forms a " bottle neck " at the entrance to the town on the Sheffield side.

Warrant was granted at Edinburgh Dean of Guild Court on the 19th inst. for a further instalment of 108 houses at Gorgie, and tenders for these were accepted at the last meeting of the Town Council, amounting to about £44,000, which works out at a completed cost of about £420 per house.

At a special meeting of the Kirbymoorside Rural Council last week the Clerk reported that a writ had been served on them by Mr. Bromehead, the architect employed for their housing scheme, for £936 9s. The Council had sent him a cheque for £336 15s. 1d., which he had refused to accept. The Council decided to contest the claim in the Law Courts.

Messrs. A. Reyrolle & Co., electrical engineers, Hebburn, are about to erect extensions in conjunction with the present works. The architects for the new buildings are Messrs. Cackett & Burns Dick, of Pilgrim Street, Newcastle, and the contract has been secured by Mr. George G. Carr, of Newcastle. It is expected that the new buildings will be completed in six months' time.

The 523 acres so far unbuilt upon of the Portsdown Hill housing site are to be relieved of the Ministry of Health restrictions by the purchase of the land outright by the Portsmouth Corporation. The agreed price is £35,600, which works out at £68 1s. 4d. per acre, or £5 17s. 4d. per acre less than the Ministry gave for it. The proposal is that the Corporation should town plan the site and then sell out the land for development.

The executive committee of the Land Union having examined the Government's Housing Bill, with the assistance of the president and secretary of the National Federation of House Builders, they have resolved : " That the maximum floor space referred to in the Bill is not sufficient to provide houses other than those of the smallest or non-parlour type, and that it is essential that the Bill should be so amended as to increase the maximum figure from 850 square feet to 1,000 as regards two-storeyed houses, and from 780 square feet to 918 as regards one-storeyed houses and flats, there being a great demand for houses of this type."

In a written reply to Mr. Willey, who asked the average estimated cost, exclusive of land, etc., of the various types of standard structures to be erected under the Housing, etc. (No. 2) Bill, Mr. Neville Chamberlain states :—" For the purpose of calculation the average cost of a non-parlour house has been estimated at figures varying between £300 and £345, but I hope that the actual cost of building will prove to be below these figures."

The following figures show the progress that has been made in Stare-aided housing schemes in Scotland to March 31, 1923 :—Permanent houses completed, 15,935 ; temporary houses completed, 665 ; reconstructed houses completed, 101 ; houses completed under the private subsidy scheme, 2,241—18,942. There are 4,956 houses at present under construction in connection with housing schemes carried out by local authorities and public utility societies. The total amount paid by the Scottish Board of Health in respect of the 2,241 houses completed under the private subsidy schemes is £541,137.

The Dean and Chapter of Exeter Cathedral have received from Sir Francis Fox a report on the structure, in the course of which he says : " The roof is in one of the most extraordinary conditions, and positions, I have ever seen, and apparently the cause of it is a matter of doubt. It is so irregular and so much out of shape that it is impossible to make an engineering or architectural sketch of it ; no two principals are alike, and the inclination from the vertical varies in every one of them. The task of dealing with the roof must be undertaken at once, and is bound to be very costly."

The official conditions laid down by the Glasgow Corporation Housing Committee with regard to the erection of aerials at housing schemes in the city have been framed. It is recommended that the aerial installations should be interior ones, but in any case they must conform to the following conditions :—No attachments to the exterior of the buildings will be sanctioned; any erections to be subject to the approval of the Director of Housing, to whom sketch plans must be submitted ; the erection to be during the pleasure of the Corporation ; and the erection to be at the tenant's risk, who will be bound to relieve the Corporation of all claims or damage arising out of the erection or in consequence of the existence or use of such aerials.

The Windlesham Urban District Council have accepted the tender of Messrs. G. Stow & Co., Ltd., Newport, amounting to £50,704, for the Bagshot, etc., Sewerage and Sewage Disposal Works. The consulting engineer is Mr. T. J. Moss-Flower, 28 Victoria Street, Westminster, and Bristol. The full list of tenders is as follows : Wm. Moss & Sons, Ltd., Oakleigh House, Bloomsbury Street, W.C.1, £66,324 ; Roads & Public Works, Ltd., 15 Dartmouth Street, Westminster, S.W.1, £64,818 0s 4d. ; D. G. Somerville & Co., Ltd., Somerville House, 30 Grosvenor Place, S.W.1, £62,400 ; Guest & Goodall, Ltd., Sunninghill, Ascot, £59,987 ; C. V. Buchan & Co., Ltd., Southwick, Brighton, £59,841 ; W. H. Rogers, Short Heath, Wolverhampton, £59,346 6s. 11d. ; A. E. Farr, 8–10 Great Saint Helens, E.C.3, £58,885 ; A. Hardy & Co., Woking, £57,540 10s. 10d. ; H. Boot & Sons (London), Ltd., 12 Lower Grosvenor Place, S.W.1, £56,811 15s. 2d. ; A. W. Wincott, Swansea, £56,778 10s. ; T. Flower & Co., Ltd., Westbury, Wilts, £55,438 4s. ; James Byrom, Ltd., Bury, Lancs, £50,883 ; The Western Construction Co., Falmouth, £50,800 ; and Geo. Stow & Co., Ltd., Station Chambers, Cambrian Road, Newport (accepted), £50,704.

Trade Notes.

The directors of Bell's United Asbestos Co., Ltd., have resolved to recommend to the shareholders at the general meeting to be held on May 10 the payment of a balance dividend of 1s. 6d. per share on the ordinary shares of the company, which, with the interim dividend paid in October last, makes a total distribution of 10 per cent. for the year. After providing for income tax and corporation profits tax the amount to be carried forward is £37,910 16s., an increase of £3,897 6s. 11d.

Messrs. George Mills & Co., Ltd., Globe Iron Works, Radcliffe, near Manchester, have received the following from Rd. Kay & Bro., Ltd., Peel Street Mills, Heywood : " We would just like to again inform you of the efficiency of your ' Titan ' sprinklers. Last week we had a fire at our mills, and owing to the prompt action of the sprinklers you installed in our premises some time ago we were saved from having a serious fire." This is the third fire at these mills extinguished by the " Titan."

Mr. C. Gordon Huntley, A.M.I.E.E., M.I.H.V.E., and Mr. William W. Wood, A.R.I.B.A., have entered into partnership, and commenced practice as consulting engineers under the name of Huntley & Wood, at P. & O. House, Cockspur Street, London, S.W.1.

Mr. George Hornblower, F.R.I.B.A., wishes to announce that he has taken into partnership Mr. Ralph W. Thorp, A.R.I.B.A., of 5 Hammersmith Terrace, London, W.6. The practice will be carried on at 2 Devonshire Terrace, Portland Place, London, W.1, under the name of Messrs. Hornblower and Thorp, architects.

Mr. Charles H. Heathcote (vice-president) has offered to defray the cost of the purchase for the R.I.B.A. Library of an album containing about 50 sketches by the late Sir Ernest George, R.A. These sketches were recently exhibited at the Galleries of the Fine Art Society, Bond Street, W.

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Submerging the Associates.

Whatever we may think on the subject of Unification, there is no doubt that the admission of a large number of members who have not passed through the customary examinations would, in plain language, tend to submerge the Associates as a class within the body of the Institute.

Rightly or wrongly, the Associates have always had a somewhat jealous regard for the position which they hold, and since the examination became obligatory they have been anxious that entrance to the Institute should be reserved for those who had qualified themselves by passing the examination. Year by year the old pre-examination members become fewer in their numbers, and the Associates have always looked forward to the day when they could claim that all members of the Institute had passed an even and uniform test, a test which bears comparison with that in force in the legal and medical professions.

The creation of the Licentiate class was strenuously objected to, and final consent to it was only gained because it was held as being the necessary key by which access could be obtained to a more favoured position for the whole profession, and, in addition, a definite promise was given that the new class of members should not have voting power, and that admission to their ranks should cease at a given date. The latter pledge was rather honoured in the breach than the observance, and now it is from time to time suggested that in the end it will be necessary to give the Licentiates voting powers. If so, both the conditions originally insisted on will have gone by the board.

We may assume that the main reason why the Unification of the Institute and Society has not taken place is that the Associates saw in the proposals previously made another scheme which would lessen their relative standing, and would decrease their proportional power in the Institute. This conclusion is unquestionably logically sound, though it may be held to be selfish by some, and a similar question is brought once more to the fore by the proposal to revive the so-called "Unification" policy. And while no one very clearly knows what brand of Unification may be recommended by some future Council, everyone knows that any scheme must involve the admission to the Institute of those who are able to *satisfy an easier test than that of the present examination.* Were this not so, the new candidates for admission would naturally qualify as Associates or Fellows in the usual manner. It is quite possible that Unification may even involve the admission of new members to the R.I.B.A. who have passed no test at all, either that of the Societies to which they belong or any other. It is unquestionable that such wholesale admissions to the Institute *must lower the average standard of qualification of its members, and must diminish the relative power and influence of the Associates, who at present control the majority of votes.* Whether we agree with any so-called scheme of Unification, or whether we are opposed to it, all must admit that it *involves the admission into the Institute of those who are either not willing or able to pass the Statutory Examination,* and it must therefore involve the submergence of the Associates in a body partially composed of those who have lesser qualifications. The membership of the Allied Societies depends not on a proved qualification, but on a basis of locality and common occupation. Those among the ranks of the Allied Societies who belong to the Institute have satisfied the tests of that body. Of the remainder, those who are willing to qualify for membership by passing tests are welcomed by their colleagues.

There is no Unification under the ægis of the Institute that can possibly be effected without altering its status or lowering its standards. Without any of these things it is the paramount architectural Society, and its position as such is indicated by its rapid increase of numbers. What are the reasons for wishing in an attempt to increase its numbers to dilute or lower its standards?

The one and only reason brought forward in support of such a retrograde step is the claim that a measure which has been endorsed by A and which has absorbed B, C and D, is more likely to find Parliamentary support than a measure which is supported by A, B, C and D independently. Surely the reasoning which can support such an argument is unsound?

Cannot a far better case be made out if a Registration measure is endorsed by the Institute which alone among architectural bodies has instituted a series of tests comparable in their scope to those set in other professions, while such proposals are also supported by other Societies whose tests are of a different character, and by those who at present remain unaffiliated with any body?

And if it be discovered that the various sections among architects cannot agree as to terms of a measure of Registration which will satisfy them, are we to believe that they will come to an agreement simply because they are included in the membership of an enlarged Institute? We confess that such reasoning appears to us to be patently absurd.

If it be argued that they will consent to proposals they would otherwise have opposed because they have been included in the Conduit Street fold, we say that such acquiescence, not being the outcome of conviction, is not worth having.

We have met and dealt with the reasons which lie underneath the Unification policy which, we hope, the Institute will entirely reject. It is due to the action by the Associates in past years that the standards of the R.I.B.A. have been both maintained and improved, and we hope they will make no less determined a stand against proposals which, though they are endorsed by many men of eminence, are neither of a nature to improve the standard or increase the dignity of the profession. If, on the other hand, they endorse them, they are likely to be entirely submerged by the influx of members of lower qualifications, and probably by the addition of the Licentiate class, who are likely, if such a scheme is endorsed, to be given voting powers. Such a scheme would at a stroke undo all that the Associates have striven for years, and that without bringing Registration appreciably nearer. It resembles a scheme for popularising the drama by enlarging an auditorium, and at the same time lowering the standard of the plays produced on the stage.

We should also consider whether, when the Institute has been transformed from a body to which the Associates and the greater portion of the Fellows have been admitted after passing an examination comparable to that of the medical and legal professions into a body composed of a heterogenous collection of men engaged in architectural pursuits, there will not be a tendency to remain outside its ranks. Its membership will, under the new conditions, confer less distinction, and the Associate class, who have very largely made the Institute what it now is, will be submerged and swamped by the later additions to its membership.

We have favoured the limited Unification scheme as between the Institute and Society if that can be brought about on reasonable terms which would satisfy the Associates, but this is the utmost limit to which we think it is wise to go, and without such Unification we believe the Institute's position is a perfectly sound one.

Our Illustrations.

DESIGN FOR THE REFACING OF THE CARLTON CLUB IN PORTLAND STONE. Sir Reginald Blomfield, R.A., Architect.

JERUSALEM WAR CEMETERY MEMORIAL PYLON. Sir John Burnet, A.R.A., & Partners, Architects.

DELVILLE WOOD WAR MEMORIAL. Herbert Baker, A.R.A., Architect.

Notes and Comments.

The New A.R.A.

We are glad to be able to congratulate Mr. Curtis Green on the honour he has received, and, we may add, well merited, for the excellent quality of his architectural design. It is difficult to realise what is being built in London, and we constantly come across good examples of design in unexpected places; but we consider the award made in Mr. Curtis Green's favour in respect to Wolseley House was well merited. If not the best building erected within recent years, it is unquestionably one of the number of them. Mr. Curtis Green has also carried out a large amount of domestic work which reaches a high standard, and in partnership with Mr. Dunn he has carried out a large amount of important work in the City and elsewhere.

The R.I.BA. Meeting.

A spirit of sweet reasonableness and acquiescence descended upon the R.I.B.A. meeting on Monday, which was held to consider the revision of the Charter and Bye-Laws, and all the proposals made were passed excepting one which dealt with the compulsory taking up of the Fellowship by Associates after a term of years. This was withdrawn for further consideration. The changes made, especially that for bringing about a poll on controversial issues and the granting to Associates equal voting powers with Fellows, are distinct advances, and it is pleasing that they should have been agreed to so readily. If the Registration Bill had been considered in a similar spirit, it is probable that more progress would have been made.

The Academic Dress.

The proposal to adopt an academic dress for members of the Institute was approved in principle at Monday's meeting, and the Committee is to consider the matter further. We do not think that anyone would make much money out of a royalty on the cost of dresses made, for in most cases similar costumes are chiefly justified by tradition, while those who take degrees at the Universities do not in many cases trouble to provide themselves with the costume which they are entitled to wear. It is perfectly true that many costumes are picturesque, and if worn would contribute to the colour of our lives; but though a revival of eighteenth-century dress for men would from this standpoint be a great advantage, mankind is not likely to depart from the ease, comfort and cheapness of modern dress for any æsthetic gain. And if this is so, they are not likely to be very enthusiastic over the possession of costumes for which they would have little use, but which constitute an "extra" for which they would have to pay without commensurate advantages being gained. In addition, so few of the members of the Institute would wear the dress that those who did would feel themselves marked men, which very few of us care to be even by a red tie or a top-hat of exceptional shape and proportions.

The Housing Subsidy.

We give in another place a copy of a letter addressed by the Secretary of the Housing and Town Planning Council to members of Parliament. We quite agree that the amount of Government help which is afforded by the Housing Bill to large towns would be utterly inadequate in many rural districts, a fact which we think affords an additional reason why the whole principle of a subsidy should be abandoned. It is impossible for financial reasons to subsidise housing to an extent which would compensate the public for the elimination of the private speculator, while by subsidising and restricting rents we eliminate the speculator. The result is that an automatic state of stalemate is brought about, which is what should be avoided in the public interests. The Government, in a word, is approaching the question from the wrong angle, and for that reason its proposals are almost certain to prove abortive. Incidentally, we quite agree with the Housing and Town Planning Council that building in Scotland is more expensive than here, owing chiefly to natural causes. On the other hand, part of the expense—the insistence on higher rooms than in the South—is reasonable enough if people are paying for what they want, but quite unreasonable if their wants are to be financed out of the public purse.

A Correction.

We regret that when we recently reproduced some illustrations of the Grauman Theatre in California we credited them to the "Architectural Forum" of New York. The illustrations in question appeared exclusively in the "American Architect" of January 31 of this year.

Royal Institute of British Architects.

The following are notes from the minutes of the Council Meeting held on April 23:—

Street Advertising.—On the recommendation of the Art Standing Committee it was decided to approach the London County Council with a suggestion that it should take steps to obtain powers to control street advertising generally, including the use of flashing and other illuminated signs upon the exterior of buildings and the disfiguring apparatus connected therewith.

Parliamentary Sub-Committee.—The Council authorised the Practice Standing Committee to establish a Parliamentary Sub-Committee.

Fees of Expert Witnesses.—It was decided to publish a notice in the Journal warning members that they should obtain, if possible, a written undertaking from solicitors employing them as expert witnesses that the full fees will be paid irrespective of any reduction that may be made by Taxing Masters or of the result of the case in the Courts.

Annual Conference of the National Association for the Prevention of Tuberculosis.—Mr. W. A. Pite was appointed to represent the R.I.B.A. at this Conference in the place of the late Mr. Edwin T. Hall.

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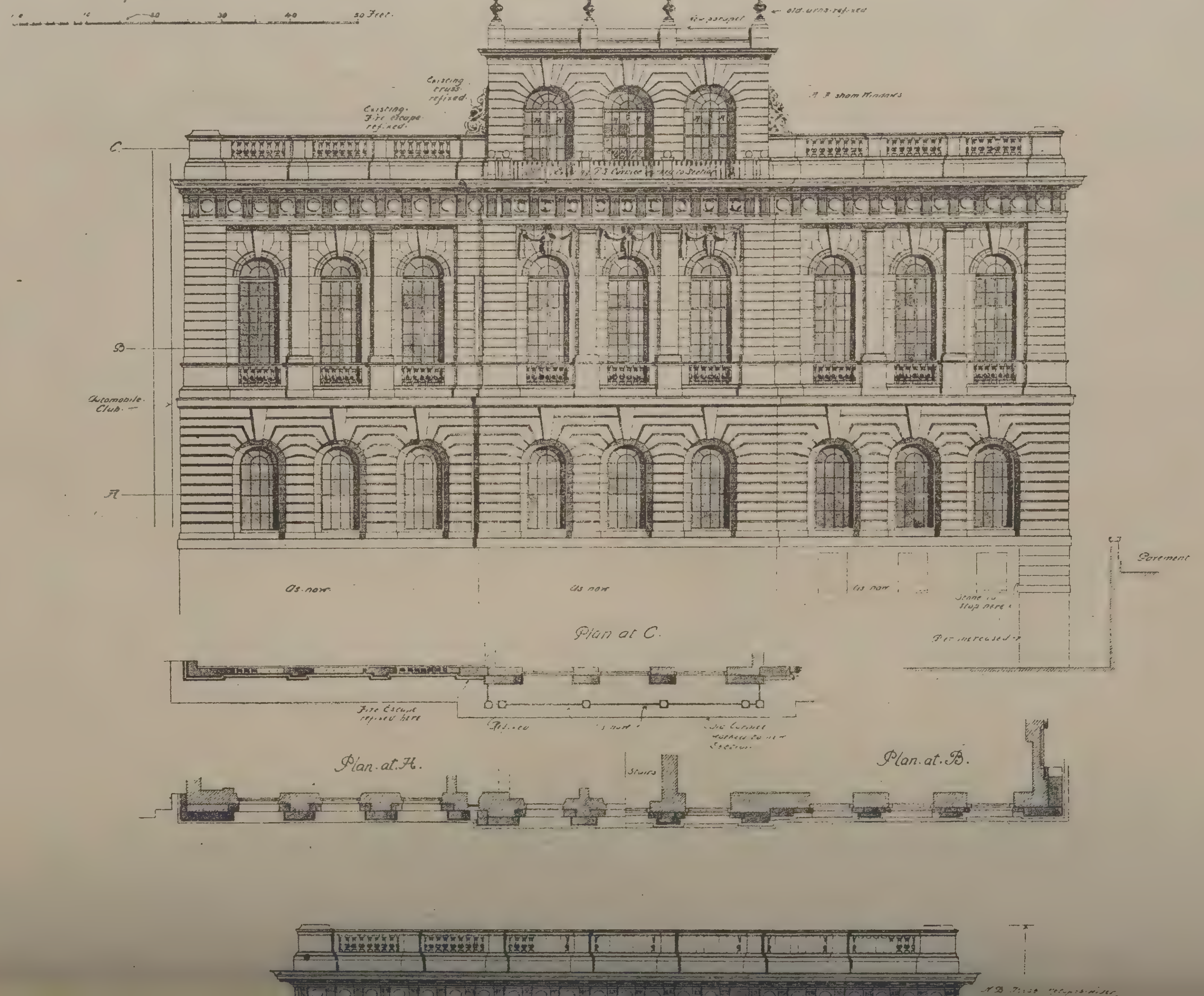
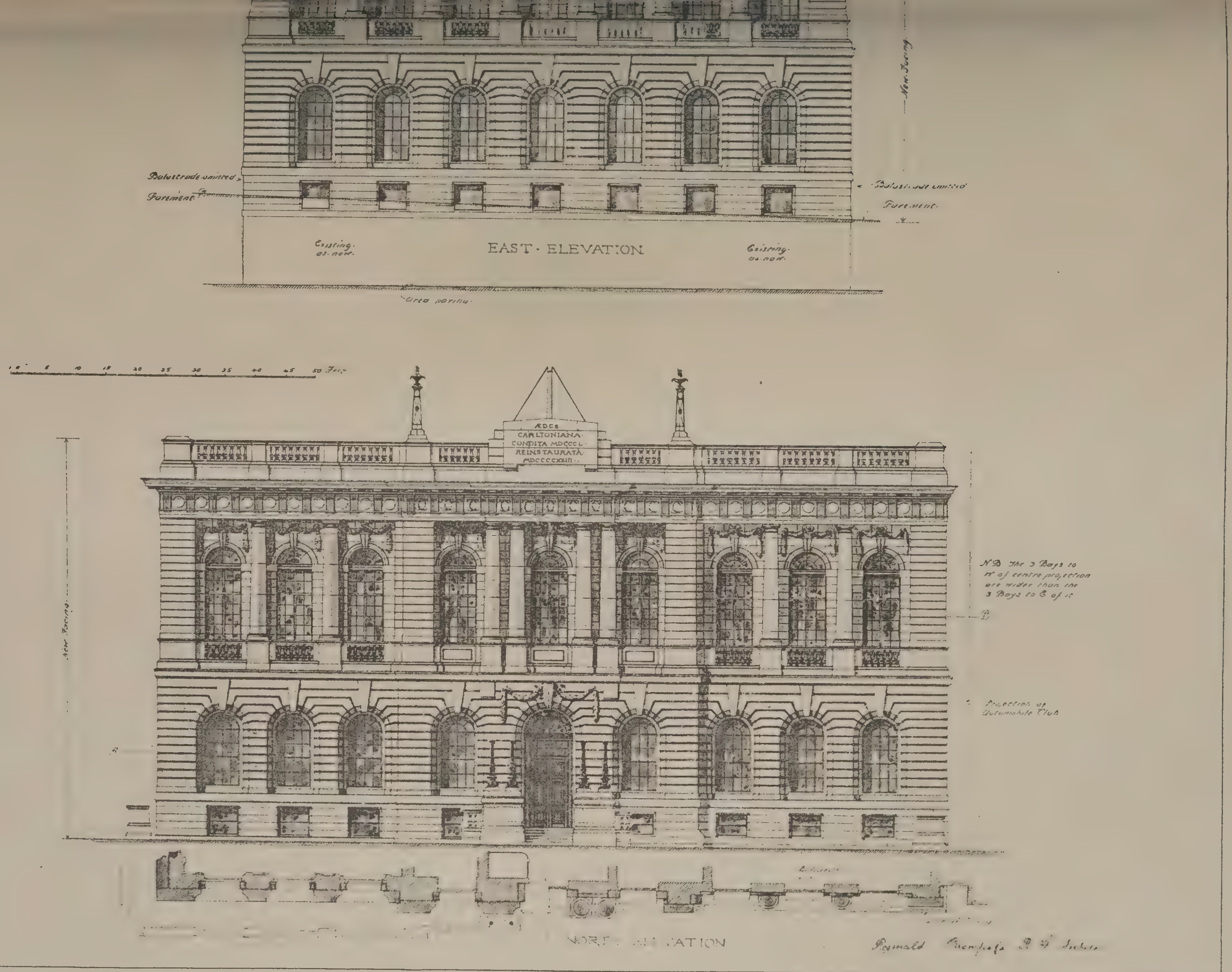
CARLTON CLUB AS REFACED
SOUTH ELEVATION
1/8 SCALE





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"INK PHOTO." SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET LONDON, W.1

R. A. Exhibition.

CARLTON CLUB REFACED.

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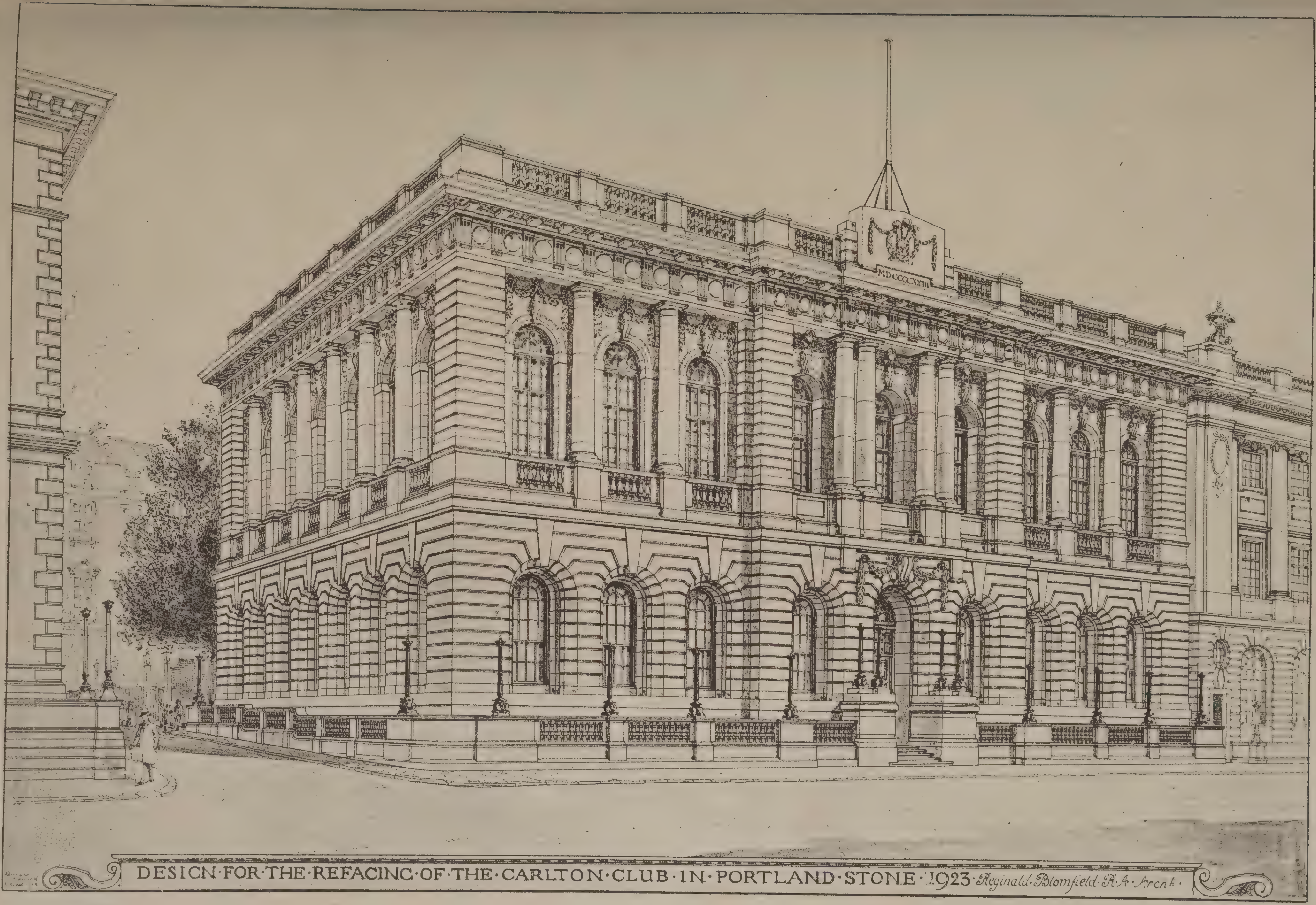
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R.A. Exhibition.

"INK-PHOTO" SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

DESIGN FOR THE REFACING OF THE CARLTON CLUB IN PORTLAND STONE, 1923.

SIR REGINALD BLOMFIELD, R.A., ARCHITECT.

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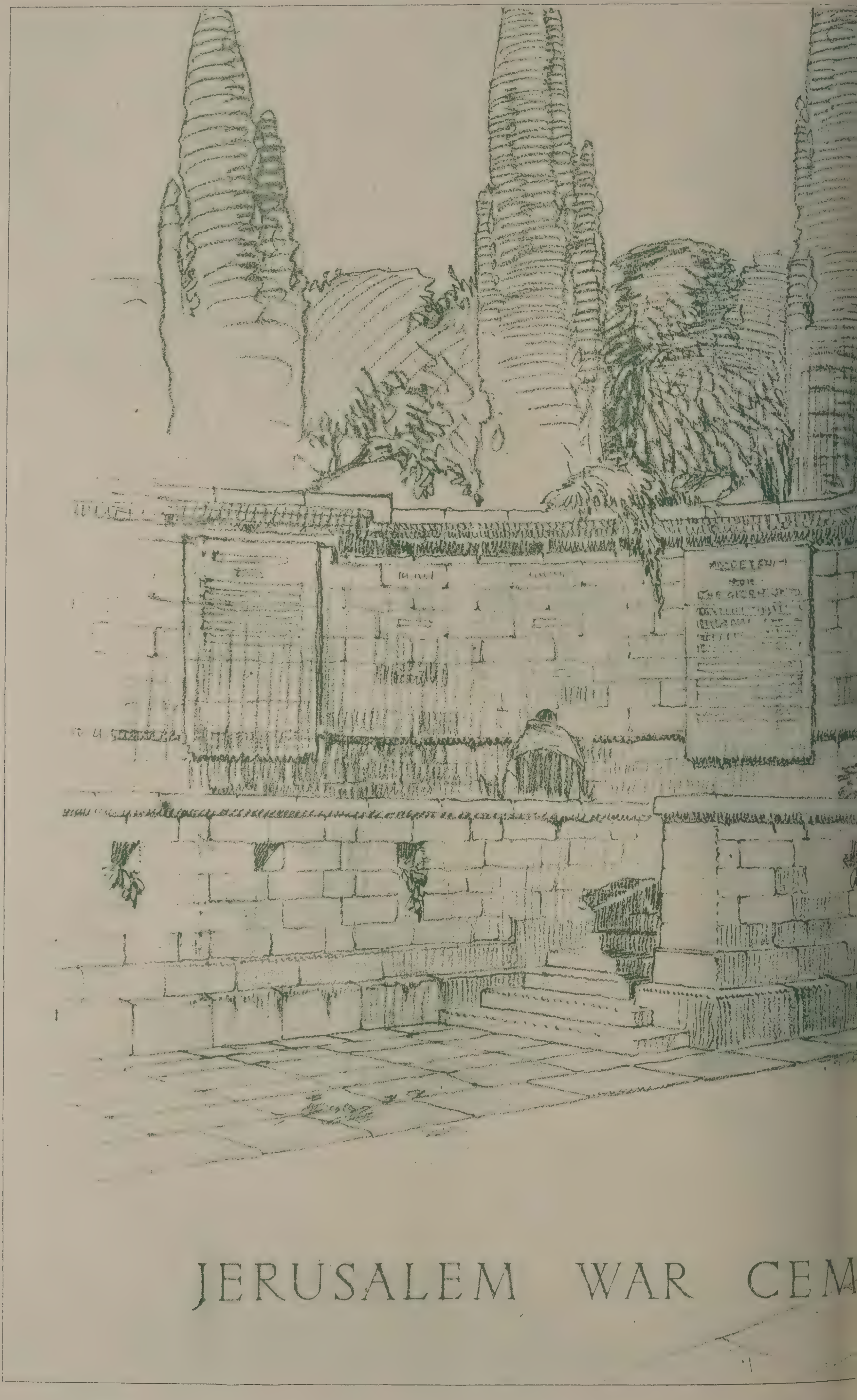

R.A. Exhibition.

SIR JOHN BURNE

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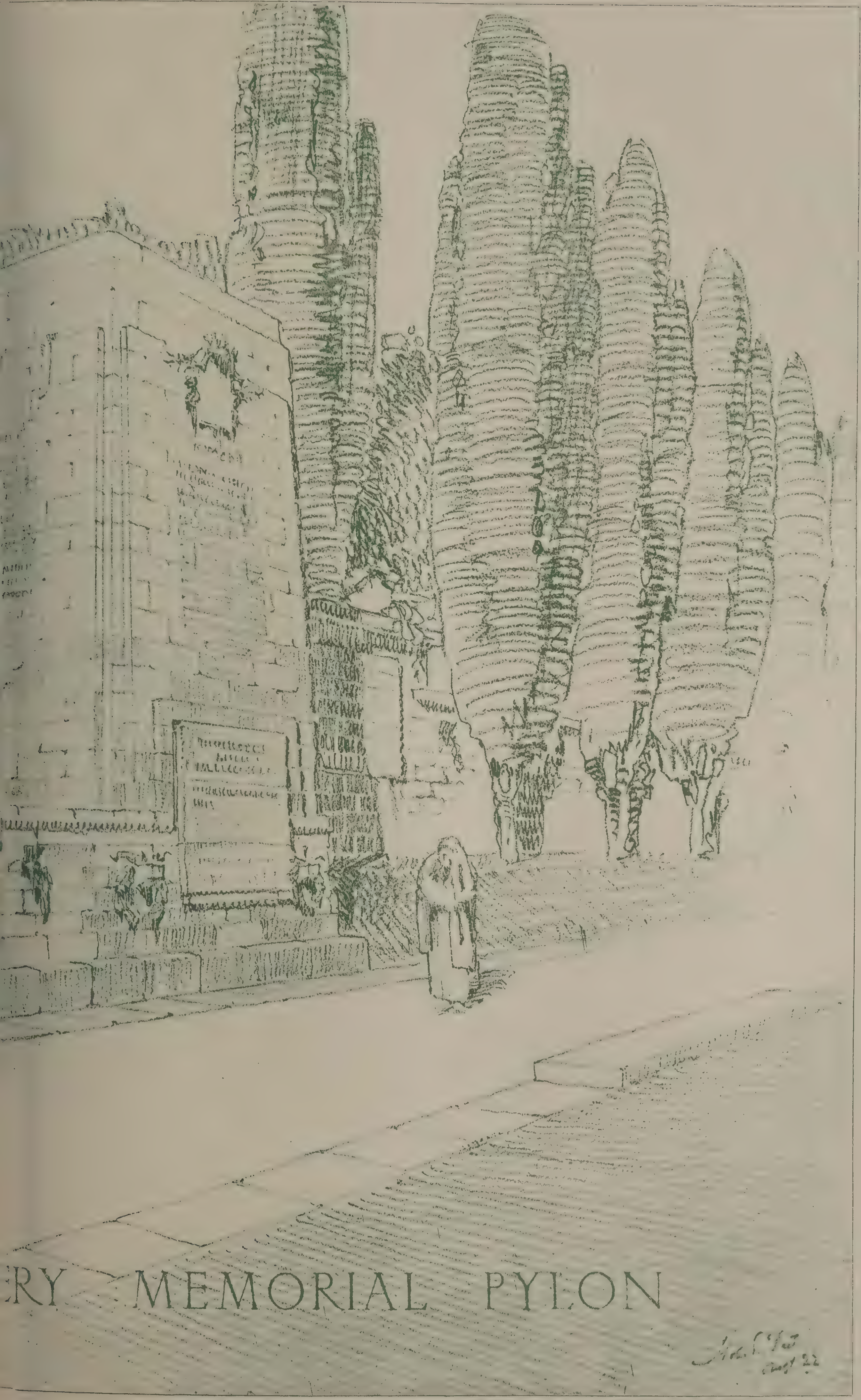

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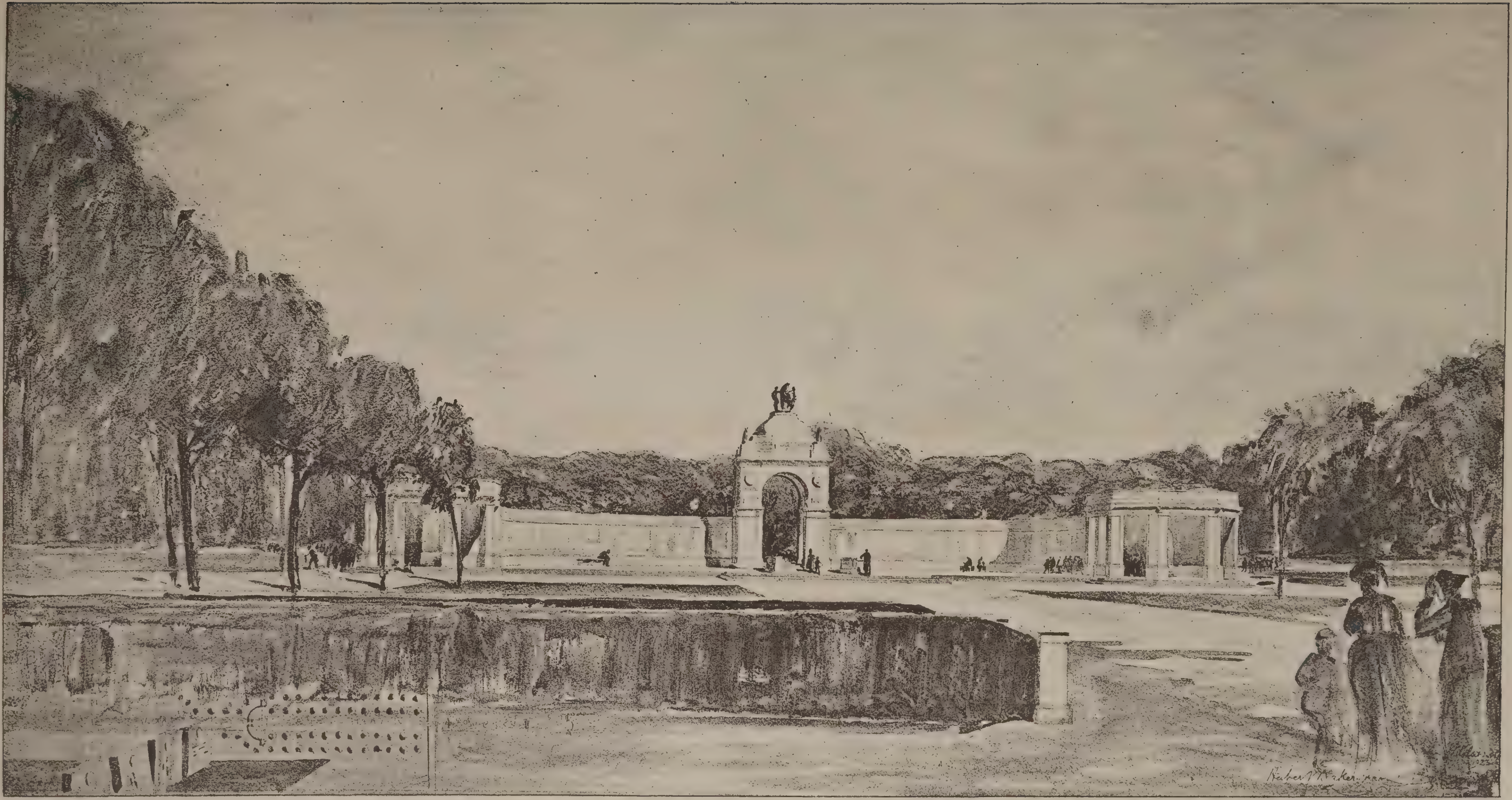

"INK-PHOTO" SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

R. A. Exhibition

DELVILLE WOOD WAR MEMORIAL.

HERBERT BAKER, A.R.A., ARCHITECT.

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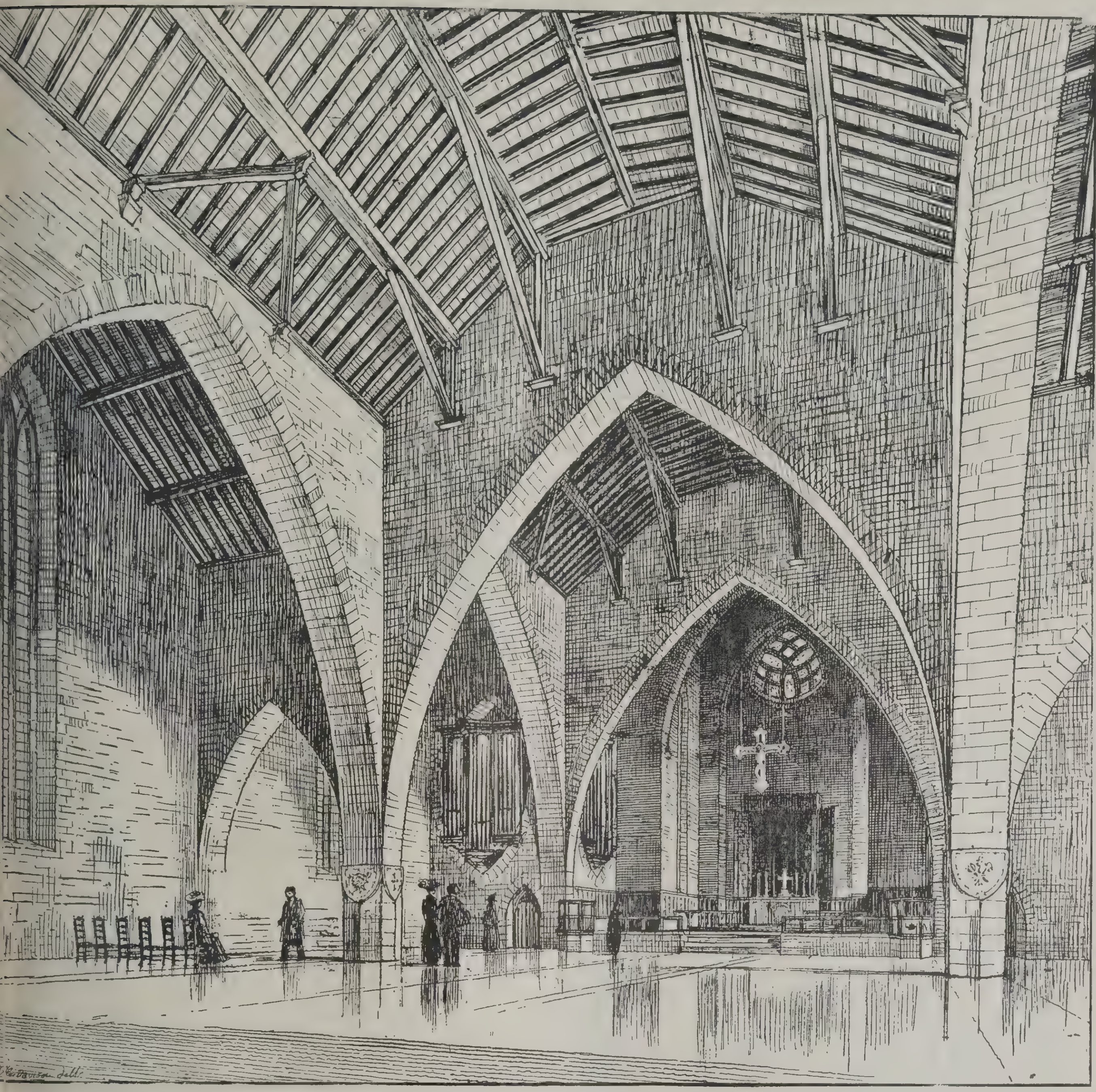


CHURCH OF ST. JOHN THE EVANGELIST, CARRINGTON, NOTTS. W. CURTIS GREEN, A.R.A. Elect., Architect.

Beards and Balconies.

By V. M. Christy.

When our modern architects step out of the traditional rut they sometimes produce effects which we hesitate whether to applaud or decry. The new type of balcony on some recent buildings conjures up half-formulated questionings whose solution seems indicated by the late, but not lamented, "beaver" game. For a balcony is to a window what a beard is to a man's face. We have only recently learnt to notice and to appreciate the beard. We see that it may add charm, dignity, mystery or humour to a countenance. But the general effect depends not alone on the quality of the beard itself. Such things as the colour and amount of hair on the head, and the angles or curves of the moustache, contribute to the important question of whether a beard "suits" a particular man or not.

If we think for a moment what "Uncle Sam" would look like were it not for the shaggy eyebrows over his shrewd eyes, or the lock of hair above his temple; or if we magine Robinson Crusoe becoming on a sudden as bald as a billiard-ball and singeing off his eyebrows, lashes, moustache and whiskers, while letting his beard hang uxuriant as ever from his chin, then we may find the reason for the vague discomfort which some of the modern balconies produce in the beholder.

A window of some importance, having a balcony projecting from it, has an appearance of seemliness and dignity. Especially is this so if the window has a strongly marked head or ornamented architrave, or if it occupies a position which gives it greater weight than other windows around it. But when a balcony asserts itself so as to become the centre of vision rather than an appendage to the window, then it is liable to look inappropriate and even absurd. The same thing applies where perhaps two windows, out of a dozen exactly similar in other respects, blossom out into balconies on their chins, with no indication elsewhere that such a growth might reasonably be expected. In some examples the balcony has been cultivated to the extent of overpowering the window, and one longs for the addition of the equivalent to a pair of whiskers or at least an eyelash. The frame, perhaps, is flush with the wall-face, and there is not even the saving feature of a shadowing string-course. In such cases the balcony has the effect of a heavy growth of beard on the face of a bald-headed man with no eyebrows, moustache or whiskers, and wearing an expression of vacant-eyed surprise.

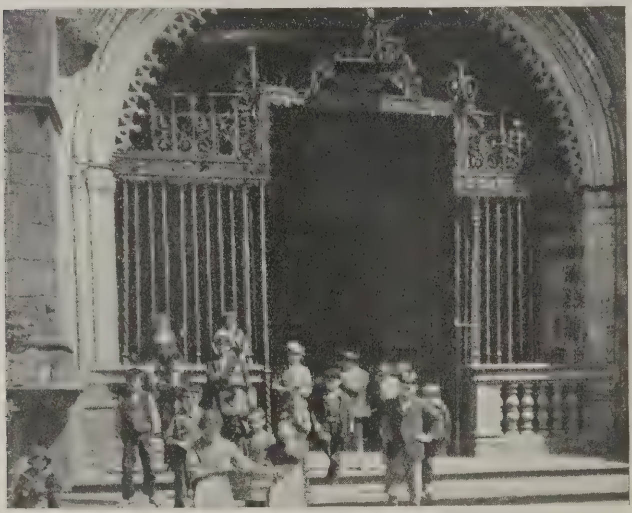
Notes from Portugal.

By G. A. T. Middleton.

No. XIX.—Braga.

Like most border towns, Braga is a city of fragments, quaintly interesting and often picturesque ; for it stands on slightly rising ground at the junction of several valleys which penetrate to the hills of Spain, and must, in olden times, have been subject to raids innumerable. As a result, of really old work there is practically none remaining, unless one can thus reckon a few fragments of the town wall, and one of the gates therein, which is now a curious mixture of many styles and periods. The roadway through it still affords the most direct approach to the centre of the town, even from the railway station, but the gate is too narrow for modern traffic, so a broad divergent road has been cut, along which tramlines have been carried, and the gateway has been spared.

Even the Cathedral has at some time suffered total destruction—probably burnt in a conflagration which involved the whole place. The lower masonry is Gothic, of various dates—it would now require time and skill to allocate the different parts to their centuries of origin. But the apse remains fairly intact, and rich with a parapet and cresting of flamboyant character combined with crisp carving, more French than Portuguese. Unfortunately, it is so hemmed in by houses that no satisfactory photograph can be secured, though possibly a good draughtsman might be able to compose a sketch, and certainly a set of measured drawings could be made—and would be worth the making.

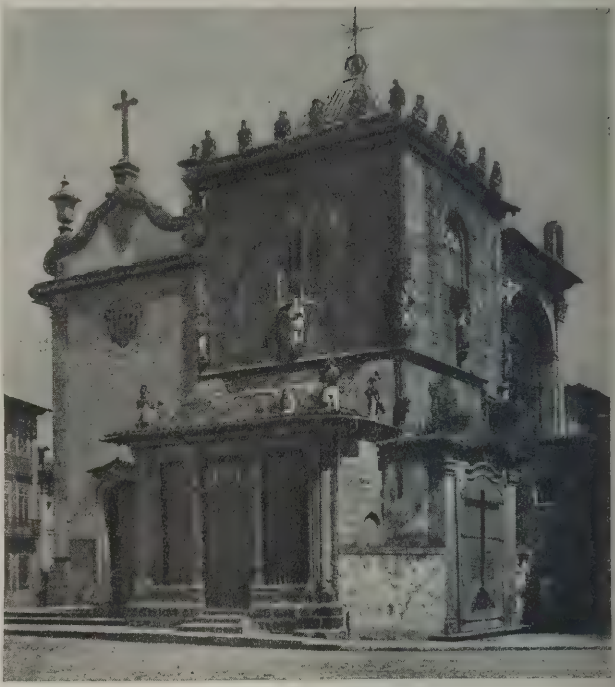


GATE TO WEST DOORWAY, BRAGA CATHEDRAL.

The west front, above the open porch or narthex which extends across its whole width, goes back no farther than the end of the seventeenth or the beginning of the eighteenth century, to which date the adjoining Bishop's Palace and much else in the town belong, some now in good and some in bad repair, but all architecturally satisfactory—as a rule more so than this front. It is spoilt by the pair of windows, instead of one in the centre, over the central doorway, and by the introduction of a dormer to enclose a statue of the Virgin between the two low bell towers.

The bells hang, as in so many other cases, in the belfry arches, but in this instance with the singular exception that one is suspended from the key-stone of the crown above the north tower; though of course it cannot be swung for ringing.

The most beautiful feature of the Cathedral is the iron gateway to the central entrance of the narthex. It is wholly Spanish, and an unusually fine example, with a base to each of its long vertical rods, of which the main ones are twisted throughout their height, while the others

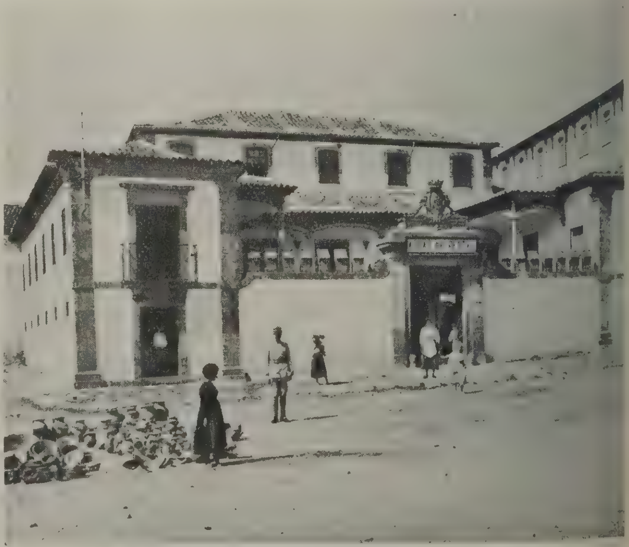


CAPELLA S. JOÃO, BRAGA.

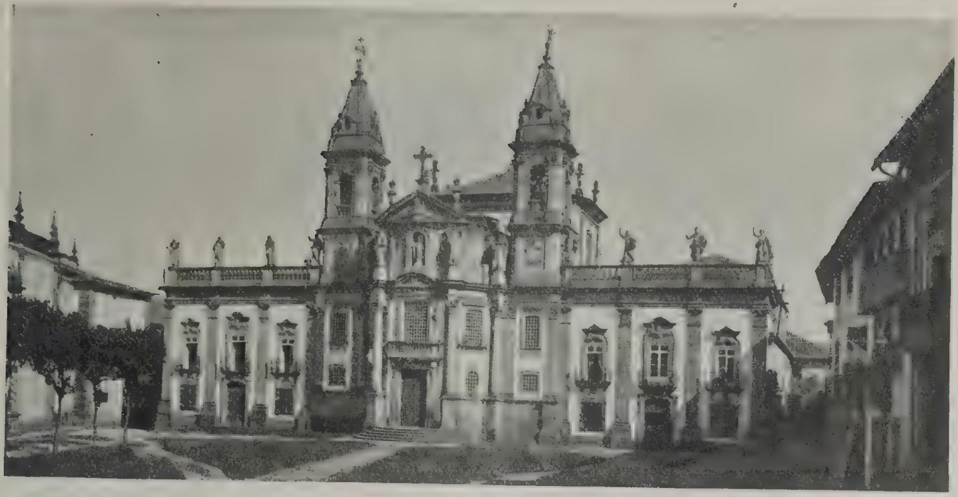
are partly of twisted and partly of plain square metal. But the deep frieze with its stamped enrichment of thin metal and its tall open cresting are its most characteristic features, with human figures among the flat foliage ornament, while the central crucifix, of which the photograph unfortunately does not show the whole, is a wonderful specimen of smith's craftsmanship.

Somewhat similar gates and grilles occur to the porch of the Capella S. João, and are probably the work of the same man. This porch is also exceptional in the arrangement of its roof, with its side walls carried above it as obvious buttresses to the tower to which it is attached ; while more strange than correct are the carved figures upon the eaves—though each in itself is an excellent piece of statuary. The tower is of Manoëlian character, but the embattlements to the eaves have so far changed their form as to have more the appearance of exaggerated antefixæ.

The chapel built round this tower is of the strange type of seventeenth or eighteenth century Renaissance, to which attention has been more than once called in these notes,



HOUSE WITH COURTYARD, BRAGA.



HOSPITAL OF S. MARK, BRAGA.

and the outer walls are almost wholly covered with painted tiles.

Braga also contains at least two notable examples of Renaissance domestic work. One of these must have been a house of considerable importance, though it is now a mineral water factory, as the notice over the doorway proclaims. It is ranged round three sides of a courtyard, the front of which is closed in by a high battlemented wall with a gateway in the centre bearing an imposing coat of arms. The central mass rises higher than the wings, and a verandah is contrived on the first floor of all three inhabited sides of the court. The whole composition, helped by the deep shadow under the wide eaves of the pantile roofs, is eminently satisfactory.

So also are the similar, but not identical, two neighbouring seventeenth-century houses in the principal square, of which one, at a street corner, has a tall attic storey raised above the general level. This attic alone is symmetrical, and it errs against accepted canons in having a solid instead of a void on the axial line on each face; and yet, both generally and in detail, the result is altogether good and at the same time unpretentious.

This last adverb, however, is not one which can be applied to the more modern Hospital of S. Mark, with its applied orders and its statuary breaking the sky line above the parapet, in imitation of the great courtyard of S. Peter's at Rome. Yet with a little more care—as, for instance, in the alignment of the heads of the windows in the wings—and by more strongly marking the towers on plan, and by holding in more restraint a tendency to vary and over-elaborate the detail and to pile feature upon feature, there was the making of a work of importance also here. But as it stands it is entirely typical of a school under whose influence much bad work was done almost all over Europe.

The Movement for Better Roads.

The Annual General Meeting of the Roads Improvement Association was held at the Surveyors' Institution, Great George Street, Westminster, S.W.1, on April 25, when the chair was occupied by the Rt. Hon. Lord Montagu of Beaulieu, C.S.I., K.C.I.E. (Vice-President), in the absence of H.R.H. Prince Arthur of Connaught, K.G., G.C.V.O. (President), who is abroad.

After the formal business, a short address was given upon road problems of to-day by Lord Montagu, and he was supported by Mr. E. S. Shrapnell-Smith, C.B.E. (President of the Commercial Motor Users' Association), and other members of the National Council of the R.I.A.

The Roads Improvement Association, in the course of their annual report, make the following comments on the important subject of " Road Amenities " :—

Practical steps are to be taken to increase the amenities of the trunk roads of the country.

It is not enough to provide an adequate roads service by which passengers and goods may be passed from place to place in the shortest time. Roads should not be the monopoly of fast moving traffic ; they should be pleasant places for the public as a whole.

An ideal road would be dustless and furnished on each side with a footpath for pedestrians throughout its entire length. The footpaths should be provided with seats at suitable intervals, and the seats would be sheltered and protected by trees and shrubs. There is no reason why small open spaces and playing grounds should not be available, outside the centres of population, on, or just off, the main roads of the country.

With regard to the purely traffic side, a great deal could be done at comparatively small expense. Corners should be opened out, and the " circus " principle applied at important cross roads. Encroachments should be prevented—many of our lesser, and some of our principal roads would be much wider than they are now had this evil been handled with determination in the past. Steps should be taken, even now, to recover road room thus stolen, and to secure the removal of obstructive and unsightly buildings and inartistic, ungainly, and often offensive advertising expedients.

At present there is no properly constituted body empowered to act concerning these things. The highway authorities are busy making and maintaining roads, and they would doubtless welcome the co-operation of enthusiastic ladies and gentlemen whose qualifications and experience entitle them to specialise in the amenities to which reference has been made.

The plan of the R.I.A. is to bring into existence, ultimately, a Committee for each of the principal roads of the country. As a beginning, a Committee is now being inaugurated for the Brighton Roads. These roads have been partially surveyed by the R.I.A. and a preliminary schedule of suggested improvements detailed.

The Committee will be composed of representatives of the County Authorities en route, the surveyors to the Local Authorities as ex-officio members, together with representatives of the landowners and of the users of the road. Active propaganda will be carried out by each Committee to secure the land necessary in order that the various amenities may be provided and improvements made, and to raise public subscriptions for the purpose of supplementing the expenditure of the Local Authorities.

This scheme has the warm approval and support of Sir Henry Maybury, K.C.M.G., C.B., Director-General of Roads, who, in a letter to the Chairman of the R.I.A., has expressed the opinion that one of the most useful branches of work would probably be the improvement (by landscape gardening) of land adjoining the highways in the less attractive neighbourhoods. " The planting of a belt of trees here and there or the formation of a shrubbery in a bleak spot," wrote Sir Henry, " would add enormously to the attractions of the road and the pleasures of road users. Work of this sort could be carried out by an independent association without in any way encroaching on the duties of highway authorities."

At the anniversary meeting of the Society of Antiquaries of London, on St. George's Day, the customary elections of officers and council for the ensuing year were held and resulted as follows :—President, Sir C. Hercules Read, LL.D., F.B.A. ; Treasurer, William Minet, M.A. ; Director, C. R. Peers, M.A. ; Secretary, Ralph Griffin. Members of the Council :—W. Paley Baildon, C. F. Bell, M.A., A. W. Clapham, F. W. Cock, M.D., J. E. Couchman, Lord Crawford and Balcarres, K.T., LL.D., the Rev. E. E. Dorling, G. C. Druce, Prince Frederick Duleep Singh, M.V.O., M.A., Major Victor Farquharson, M. S. Giuseppi, R. Holland-Martin, C.B., John Humphreys, P. G. Laver, Harold Sands, M. F. Tweedie, the Rev. H. F. Westlake, M.V.O., M.A.

WOLSELEY HOUSE, PICCADILLY. W. CURTIS GREEN, A.R.A. Elect., Architect.

The Society of Architects.

The annual dinner of the Society of Architects was held at Princes Restaurant, Piccadilly, on Wednesday, April 25, Mr. E. J. Partridge, F.S.I., president, being in the chair.

The gathering was a remarkably representative one. The chairman was supported by the Rt. Hon. the Earl of Onslow (Parliamentary Secretary, Ministry of Health) and the Viscount Leverhulme (President, Royal Institute of Public Health). Among others present were:—Mr. Paul Waterhouse, M.A., Oxon, F.S.A. (President, R.I.B.A.); Sir Kingsley Wood, M.P.; Councillor Frank G. Rye (Mayor of Westminster); Mr. J. McClare Clark (President of the Surveyors' Institution); Mr. Stanley Hamp, F.R.I.B.A. (President, A.A.); Mr. Charles Denny (Master of the Carpenters' Company); Mr. F. Gill, O.B.E. (President, Institution of Electrical Engineers); Mr. G. C. Lawrence, R.W.A., A.R.I.B.A. (President, Bristol Society of Architects); Mr. W. H. Nicholls (President, National Federation of Building Trade Employers); Mr. W. T. Jones, F.R.I.B.A. (President, Northern A.A.); Mr. P. E. Thomas, O.B.E., F.R.I.B.A. (President, South Wales Institute of Architects); Mr. F. J. Gayer (President, Institute of Builders); Mr. H. N. Kerr (President, District Surveyors' Association); Mr. F. J. Walton (President, London Master Builders' Association); Mr. H. Marryat (President, Electrical Contractors' Association); Mr. J. C. Squire (President, The Architecture Club); Mr. H. V. Lanchester, F.R.I.B.A. (President, Town Planning Institute); Sir Philip Pilditch, M.P.; Mr. H. Molyneux-Killik (Sheriff of London); Mr. W. E. Riley, F.R.I.B.A. (President, Official Architects' Association); Mr. A. B. Cowtan (Master Painters-Stainers' Company); Mr. W. Reynolds-Stephens (President, Royal Society of British Sculptors); Professor A. E. Richardson, F.R.I.B.A. (London University); Mr. Ian MacAlister, B.A. (Secretary, R.I.B.A.); Rev. J. A. Smith-Bullock, M.A., B.D.; Mr. E. Fiander Etchells, A.M.Inst.C.E., Hon. A.R.I.B.A. (President, Institution of Structural Engineers); Mr. E. J. Elford (President, Institution of Municipal and County Engineers); Mr. F. R. Yerbury (Secretary, A.A.); H. G. Montgomery, Hon. A.R.I.B.A.; Mr. J. W. Beauchamp; Mr. Ivor P. Jones, A.R.I.B.A. (Secretary, South Wales Institute of Architects); Mr. J. Mitchell (A.S.A.P.U. Secretary); Mr. G. G. Scott, F.R.I.B.A., R.A.; Mr. Ellis Marsland; Mr. H. C. H. Monson; Mr. E. J. Sadgrove, F.R.I.B.A. (Past President); Frank O. Salisbury; Mr. A. Alban H. Scott (Past Vice-President); Major C. F. Skipper (Vice-President); Mr. Sylvester Sullivan, A.R.I.B.A. (Vice-President); Mr. C. F. Norman; Mr. A. F. A. Trehearne, F.S.I.; Mr. A. J. Taylor (Vice-President); Mr. G. H. Wenyon (President, Bombay Branch); Mr. W. Woodward, F.R.I.B.A.; Mr. F. T. Verity, F.R.I.B.A.; Mr. Graham B. Tubbs, A.R.I.B.A.; Mr. C. McArthur Butler, F.C.I.S. (Secretary); and Mr. C. A. Barman (Assistant Secretary).

The loyal toasts having been honoured, Mr. A. J. Taylor, Vice-President, proposed "The Guests." After alluding to the five responders, Mr. Taylor made a reference to the Press, both technical and lay. The Press, he said, had realised that there was some advantage to the public in art; the technical Press had always been the profession's friends, but now the other Press was realising that they wielded a very great power in educating the public in the advantages of having some knowledge of art.

The Earl of Onslow in replying said the question of architecture had occupied the attention of Parliament during the last few days, and the Cabinet had rendered a not inconsiderable service to the art in preserving to the nation that ancient and magnificent building known as the Whitgift Hospital. There were many symptoms in the debate which seemed a very happy augury for the future. Though the speakers included men of quite opposing political views, not one dissented from the motion before the House. Not only had they discussed the preservation of ancient buildings, but Parliament was also looking to the future. Mr. Neville Chamberlain had on the previous day introduced the second reading of the Housing Bill which the Government trusted would stimulate the building of houses and so assist in diminishing the deplorable shortage. When that Bill became an Act the Society of Architects would come forward and fulfil certain duties which would be no light ones. The urgent problem before the profession was to build houses for all classes, especially for those who cannot afford more than 10s. 6d. or so a week. When our descendants survey this period they will judge it by the way in which it used the opportunities of house construction and architecture. Their problem was to cover the country with houses within the limits of the means at disposal and yet which will add to its beauty. It was very much more difficult than it was a hundred years ago. To-day the houses have to be such as will appeal to the sense of beauty. But he felt sure the profession would face this with the same courage and success as in the past.

Mr. Paul Waterhouse, President, Royal Institute of British Architects, said they all knew that their two institutions existed for the purpose of furthering architecture. A few months ago they had been brought very near together. Some people would say that the R.I.B.A. and the Society of Architects moved on parallel lines. Personally he would not agree to that because, according to Euclid, parallel lines never met. He hoped that in the near future something would happen to bring the two once more into that relationship which he shared personally, but which he would like to share officially.

Sir Philip Pilditch, M.P., J.P., in apologising for his unceremonious attire, explained that until seven o'clock he had been addressing the Speaker on the subject of housing. He believed that he was the only architectural flower that bloomed in the House of Commons. As a consequence many were the duties which fell to him in connection with the profession. With regard to housing, he had stated in the debate that the best chance of a solution was for the Government to keep out of it. The Bill was on the right lines in limiting the size of the houses to be aided by the subsidy to a distinct and definite class—for any such grant would at once kill private enterprise. The Bill confined itself to a class of building which was really by no means so bad as some of the public prints would have them believe. The Bill had at any rate the advantage of assisting the small house which was urgently needed by people now living in two rooms or less. If Parliament decided to confine their operations to those who needed them most, and left the rest alone, the building trade would stand a much better chance of dealing with the housing of the people than they had under the last Housing Act, which was shattered on the rock of trying to cope with the whole housing of the people.

Mr. G. C. Lawrence, President, Bristol Society of Architects, said he particularly wished to thank the Society for the opportunity given by the invitation to that dinner for testifying to their sympathy and friendship and to their deep appreciation of the lofty aims the possession of which had rendered possible the great achievements of the Society of Architects since its birth rather less than forty years ago. Happily the mind of man was so constituted that, having accomplished a task or overcome a difficulty, its instinct is forthwith to search for other tasks and greater difficulties, the doing or surmounting of which will give congenial employment to the accumulated skill and energies acquired by the experiences of the past. The immediate future beckons on to noble effort for a noble end. There had come during the last few years a sense of incompleteness, of a unity of heart and purpose which was ill-expressed in their sectional differences and divided camps. Despite difficulties and barriers their progress would brook no interruption. Past achievements would pale in the light of the prospect which would open up for a united profession and an enlightened public when they found themselves and their preferences mastered by the spirit of unity and sacrifice.

Mr. W. H. Nicholls, President, National Federation Building Trades Employers, alluding to the crisis in the trade, said his Federation, which represented thirteen thousand employers, had no right to take action of that sort if it could be avoided. He could assure those present that unless it had been a matter of principle the employers would never have taken the stand they did. It had to be borne in mind that no industry could flourish in a state of discord. The Federation had been pleased of late to feel the accord and unity prevalent between the profession and themselves. They felt it to be incumbent on them to show that that friendship was merited. Their feelings for the operatives were just as sincere as for the architects. All the three of them must work together.

The toast of "The Society of Architects" was proposed by Viscount Leverhulme, Hon. R.I., Hon. LL.D., Hon. F.R.I.B.A., President, Royal Institute of Public Health. There was, he remarked, no substitute for wisdom, there was only one imitation of it—and that was silence. The Society was doing useful work, though the youngest of the architectural societies of London. He would like to see the "Journal" develop on the lines outlined to him by the Assistant Secretary. In America, where architecture was making greater strides than here, they had adopted a definite policy for popularising architecture through a number of journals. Here there was nothing quite of that character. There ought to be a journal which could be bought at every bookstall. In view of the enormous advance in the knowledge of architecture during the past ten or twenty years he believed such a publication would prove a success. Referring to the housing question Lord Leverhulme said there had been no word too hard to describe landlords; on the other hand people felt they could not get as good a return from house property as on the Stock Exchange. So the supplying of small houses came to be left to the Government. But they must remember that every blunder will be paid for by the tenants of those Government houses. It was open to doubt whether that was any improvement on the old-fashioned plan of private enterprise. In some instances there may have been an unfair advantage taken and excessive rents charged. But other investors were thereby attracted so that more houses were built and the balance restored. In the long run the tenant, under a system of free enterprise, was master of the situation. Architecture was, in his opinion, the most unselfish profession in the United Kingdom. Those who followed were not allowed to canvass for business. Vitruvius had left it on record that many of his fellow-architects canvassed for business, but that he had been taught his clients should seek him and not he the client. He (Lord Leverhulme) had sympathy with the idea. But there were many different ways in which canvassing could be done. Doctors, who were also forbidden to advertise, were frequently obtaining notoriety by saying that such and such a thing was dangerous. Why should not architects not do the same ? They could make out a good case with the help of statistics. For instance, why should not some architect say that bedrooms should be abolished ? There were plenty of statistics of deaths to show bedrooms were deadly. He regretted very much that in opening public buildings the names of the architects are not properly put forward. Very often they might admire a building, but be unable to find out the name of the architect without a long and laborious process.

Mr. E. J. Partridge, F.S.I., the President, in the course of his reply admitted that on the whole they were a modest crowd. With regard to the question of advertising; there were no doubt individuals who would bear Lord Leverhulme's recommendation in mind. Mr. Waterhouse had referred very kindly to the relations between the Institute and the Society. In the past there had been a considerable amount of friction between individuals members of the two bodies. But just as in the mechanical world friction produces smoothness, so with them it might lead to smoothness between the Institute and the Society. The Society was formed primarily for achieving statutory registration and achieved a certain amount of progress. But he felt sure that in the increased friendliness of the two societies some joint measure will be discussed. Apart from registration there were other lines upon which the Society had been moving forward. One was the education of the young architect. They instituted some years ago the Beaux Arts methods and they had founded certain scholarships, including one for the study of architecture abroad. They had received letters of appreciation concerning their "Journal" from America and many places abroad. A very great proportion of the credit for these activities was due to their secretary who had occupied the post for so many years.

Competition News.

The Town Council of the Burgh of Largs invite designs for a pavilion suitable (1) in the summer time for alfresco entertainments; and (2) in the winter time for the purposes of a public hall. The site is on the foreshores, and at present is occupied by a temporary erection for alfresco entertainment. The minimum seating accommodation required is 1,000, and the height of the building must not exceed 19 feet. A premium of £25 will be awarded to the accepted design. Plans with approximate cost to be lodged with Mr. P. Morris, Town Clerk, Largs, on or before June 30.

The Society of Architects has been informed that the ground of objection to the Tunbridge Wells Pavilion Competition has been removed. Members are therefore free to compete.

Members of the Society of Architects are notified that the conditions of the Linlithgowshire Education Authority's competition for proposed Infant School at Fauldhouse are not in accordance with the regulations, and they are requested not to take part in the competition without first ascertaining from the Secretary that the conditions have been approved by the Council.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Linlithgowshire Education Authority's competition for Infant School at Fauldhouse are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

It is intended during the coming year to provide a new Masonic temple at Swansea, the present one being wholly inadequate. Some time ago a large house in St. Helen's Road was acquired as the site, and it is proposed to expend £20,000 on the structure.

Correspondence.

R.I.B.A. Council Election, 1923–24.

To the Editor of The Architect.

Dear Sir,—Everyone who is interested in the well-being of the Royal Institute will be seriously disturbed at the unfortunate impasse which has now been reached upon the question of Registration.

If this situation continues, infinite harm will be done to the prestige and influence of the R.I.B.A.

We believe that there must be a *via media* between the opposing schools of thought upon this question, and that there must be, if all will unite to try and find it, a reasonable basis upon which an agreed measure of registration can be put forward without dividing the Institute, as the present proposals have done.

We attach the list of candidates put forward by the 1922 Emergency Committee, and have read their address, and intend to support them for the following reasons :—

Because we believe that, as representative of the Art and Practice of Architecture in London and the Provinces, they will do all in their power to safeguard the highest interests of the R.I.B.A. ; and

Because we believe that they will endeavour, if elected, to ensure a satisfactory solution of this very difficult problem of Registration by agreement between the various interests concerned, without which nothing effective can ever be done.—

We are,

Yours faithfully,

FELLOWS

J. Maurice Arthur
Graham C. Awdry
Roger Bradley Barker
J. W. Beaumont
W. S. Beaumont
W. H. Bidlake
O. D. Black
William J. Blain
Reginald Blomfield
Q. M. Bluhm
E. T. Boardman
Charles Belfield Bone
George A. Boswell
John M. Bowie
Norman Bridgman
H. H. Brown
W. Talbot Brown
A. T. Butler
John Duke Coleridge
R. Langton Cole
T. E. Collcutt
Alfred Cox
James H. Craigie
J. Crouch
John Cubbon
C. R. Davy
C. F. W. Dening
F. B. Dunkerley
T. E. Eccles
C. E. Elcock
Norman Evill
John Fairweather
J. W. Fisher
F. H. Floyd
J. E. Forbes
W. A. Forsyth
Peter G. Fry
Theodore Fyfe
John B. Gass
J. H. Gibbons
L. M. Gotch
G. Hastwell Grayson
Mowbray A. Green
J. F. Groves
E. Stanley Hall
H. Austen Hall
John Hall
L. K. Hall
Stanley Hamp
C. W. Harris
E. Vincent Harris
Sidney F. Harris
N. W. Harrison
William Haywood
A. G. Henderson
A. W. Hennings
Edward Hewitt
W. Higginbottom
E. P. Hinde
L. Hobson
A. J. Hope
P. Morley Horder
A. T. Hussell
David B. Hutton
R. C. James
James Jerman
Francis Jones
W. T. Jones
E. B. Kirby
Ralph Knott
L. Kitchen
Sydney D. Kitson
H. V. Lanchester
James Lochhead
Robert Lorimer
John A. Lucas
Mervyn E. Macartney
A. G. R. Mackenzie
W. Hunter McNab
A. N. Malcolm
Edward Mansell
T. P. Marwick
Edward Maufe
W. J. N. Millard
James Miller
John D. Mills
Eric Morley
Percy Morris
J. D. Mould
Glendinning Moxham
Alan E. Munby
Albert E. Murray
Hamilton Neil
F. Winton Newman
Charles Nicholson
A. C. A. Norman
G. H. Oatley
Paul Ogden
J. P. Osborne
A. N. Paterson
G. A. Paterson
C. Stanley Peach
F. B. Peacock
Godfrey Pinkerton
Beresford Pite
W. A. Pite
A. E. Powles
A. N. Prentice
Edgar Quiggin
George Reavell
T. Taliesin Rees
C. H. Reilly
A. E. Richardson
Charles Riddey
H. Whiteman Rising
Andrew Robertson
L. Robertson
P. A. Robson
David Salmond
R. Savage
G. D. B. Shepherd
B. Priestley Shires
J. Simpson
John W. Simpson
W. S. Skinner
G. J. Skipper
John Slater
C. S. Smith
J. Arthur Smith
C. G. Soutar
Herbert Spink
John Steel
John Stewart
John Swarbrick
Joseph Swarbrick
F. S. Swash
Henry Tanner
J. D. Tate
Isaac Taylor
T. L. Taylor
Harry Teather
E. J. Tench
P. H. Thoms
James Thomson
Arnold Thornely
C. Harrison Townsend
H. F. Traylen
F. W. Troup
Raymond Unwin
B. F. G. Wakefield
C. F. Ward
W. H. Ward
Paul Waterhouse
H. Garnham Watkins
W. H. Watkins
John Watson
Aston Webb
G. W. Webb
T. H. Weston
Montague Wheeler
William B. Whitie
C. B. Willcocks
R. J. Williams
W. E. Willink
Frank W. Wills
J. B. Wills
Cecil L. Wilson
Robert G. Wilson
W. G. Wilson
Edmund Wimperis
Percy S. Worthington
Alfred B. Yeates
G. P. Kennedy Young

ASSOCIATES

L. P. Abercrombie
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J. C. Ainsworth
Frank H. Allen
W. H. Ansell
P. Barker
Luke Barlow
J. A. Baskerville
H. Battiscombe
A. G. Bewes
A. B. Botterill
F. H. Brazier
F. A. Brewerton
E. H. Buckingham
L. H. Bucknell
Lionel Budden
John Brown
G. E. Charlewood
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J. F. B. Cowper
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C. S. Kimpton
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T. Gildart Mansell
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S. Moss
F. E. Openshaw
Herbert Passmore
W. E. Potts
H. Price
W. H. Price
W. S. Purchon
Thomas Rayson
G. H. Rowledge
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T. A. Skinner
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C. P. Tanner
A. K. Tasker
George Vey
S. J. Wearing
A. E. M. Whitehouse
G. H. Williams
G. Berkeley Wills
H. A. Wilson
Frank Woods
G. Grey Wornum
E. G. Wylie
C. J. M. Young
W. C. Young

Nominations.

President.—John Alfred Gotch (Northampton).

Vice-Presidents.—Major Harry Barnes; Herbert Tudor Buckland (Birmingham); Edward Guy Dawber; William Curtis Green, A.R.A.

Hon. Secretary.—Arthur Keen.

Ordinary Members of Council.—Henry V. Ashley; Robert Atkinson; Sir John James Burnet, A.R.A.; Walter Cave; Sir Thomas Edwin Cooper; Major Hubert Christian Corlette; Sir Banister Flight Fletcher; Henry Martineau Fletcher; Gilbert Fraser (Liverpool); John Keppie (Glasgow); Sir Edwin Landseer Lutyens, R.A.; Thomas Ridley Milburn (Newcastle); Giles Gilbert Scott, R.A.; Walter Tapper; Sir Alfred Brumwell Thomas; Percy Edward Thomas (S. Wales); Edward Prioleau Warren (Berks); Maurice Everett Webb.

Associate Members.—Harold Chalton Bradshaw; George Churchus Lawrence (Bristol); William Godfrey Newton; Michael Theodore Waterhouse; Herbert Arthur Welch; John Hubert Worthington (Manchester).

To the Editor of The Architect.

Sir,—The appearance of the 1922 Emergency Committee upon the scene of this year's Council Election is, I hear, not altogether understood by some members of the R.I.B.A.

The reason for this Committee's existence is that, at the last Council election, persistent canvassing methods were employed to elect a new Council on an entirely political issue.

The 1922 Emergency Committee was spontaneously formed immediately after the occurrence of this event. It consists of many representative architects in London and the provinces.

It was decided at the first meeting, many months ago, to submit to the electorate on the occasion of the next election a list of candidates for the Council who the Committee believed would carry the confidence of the profession and the public by their representative and non-political character.

The Emergency Committee has nothing but regrets for the unfortunate political aspect which the so-called defence league gave to the last election, and, in submitting its list of nominations, only desires to give the electorate a chance of casting their votes for men whom they consider most fitted to uphold the interests of the Institute, and, who, except in the cases of Mr. Gotch and Mr. Keen, are, by the action of the present Council, excluded from the official "House List."

If the Committee's nominees are elected, the Council of the R.I.B.A. will, for the first time, contain a proper representation of the Allied Societies all over the kingdom.

I venture to think that the 1922 Emergency Committee has rendered a real service to members of the Institute in adding some of the most honoured names in the profession to the list of nominations for the next Council.

I should add that the "House List" issued by the present Council was so limited that it did not even include the requisite number of Fellows laid down in the By-laws as necessary to form a "House List"!—I am, yours faithfully,

Maurice E. Webb,
Hon. Sec., 1922 Emergency Committee.

"The Architect in Fiction."

To the Editor of The Architect.

Sir,—Mr. Hyams' article is of much interest, but he scarcely makes enough of the absurdity of Dickens' characterisation in regard to the profession. A young man, with "a taste for drawing," becomes a pupil, and his first work is to enter for a competition; without practical experience he succeeds in winning the first place against all competitors. As a pupil working for his master, he has no ground for legal action for "fraudulent use of a design," but all the same he brings such an action. The whole architectural setting is broad farce, but undesignedly so. Has Mr. Hyams read "The Man who Won," by Mrs. Baillie Reynolds? It has a most unrealistic account of a lady architect and her first important work; and if Dickens could have surpassed the absurdity of this writing, I verily believe that it is only he could have done so. I am a strong lover of Dickens, but it is necessary at times to chasten those whom we love.

Anstey and Hardy knew their subject, having been architects, and Anstey's farce is designedly such; and one could mention other architect authors, but I have taken up enough of your valuable space.—Faithfully yours,

Percy L. Marks.

10 Matheson Road,
W. Kensington,
April 22, 1923.

Hexham Abbey.

To the Editor of The Architect.

Sir,—Between 1898 and 1909 very considerable repairs were carried out to Hexham Abbey. Everything that was then considered necessary for the preservation of the fabric was done, and it was hoped that nothing beyond minor repairs would be necessary for many years to come.

As no careful inspection had been made for the last fifteen years, the Hexham Parochial Church Council decided that a full and complete survey of the walls, roofs, and tower should again be made by eminent ecclesiastical architects.

Their report has now been received by the Council, and it discloses the fact that some parts of the Abbey are in a dangerous condition, and require immediate attention. This is especially the case with the parapets of the tower, the south transept, and the choir, parts of which must be taken down and rebuilt.

These repairs will be costly, but they are absolutely essential for the safety and stability of the building. The Church Council therefore appeals for the sum of £2,000 to carry out the whole of the work.

Hexham Abbey is a national monument, and the Council asks all who have an interest in this glorious building to assist in the work of repair. It must be remembered that the ordinary upkeep of such a building, which is not endowed, is a heavy burden on a small community.

Subscriptions may be sent to the honorary treasurer, Mr. G. P. Bell, 8 Woodside, Hexham, or paid direct into the Bank of Liverpool and Martins, Ltd., Hexham (Abbey Account).—Yours, etc., for the Parochial Church Council,

J. V. C. Farquhar,
Rector and Chairman.
J. A. Baty,
Vice-Chairman.
William Fisher,
Robt. Grieves,
D. K. McComb,
G. P. Bell,
George Ross,
Churchwardens.

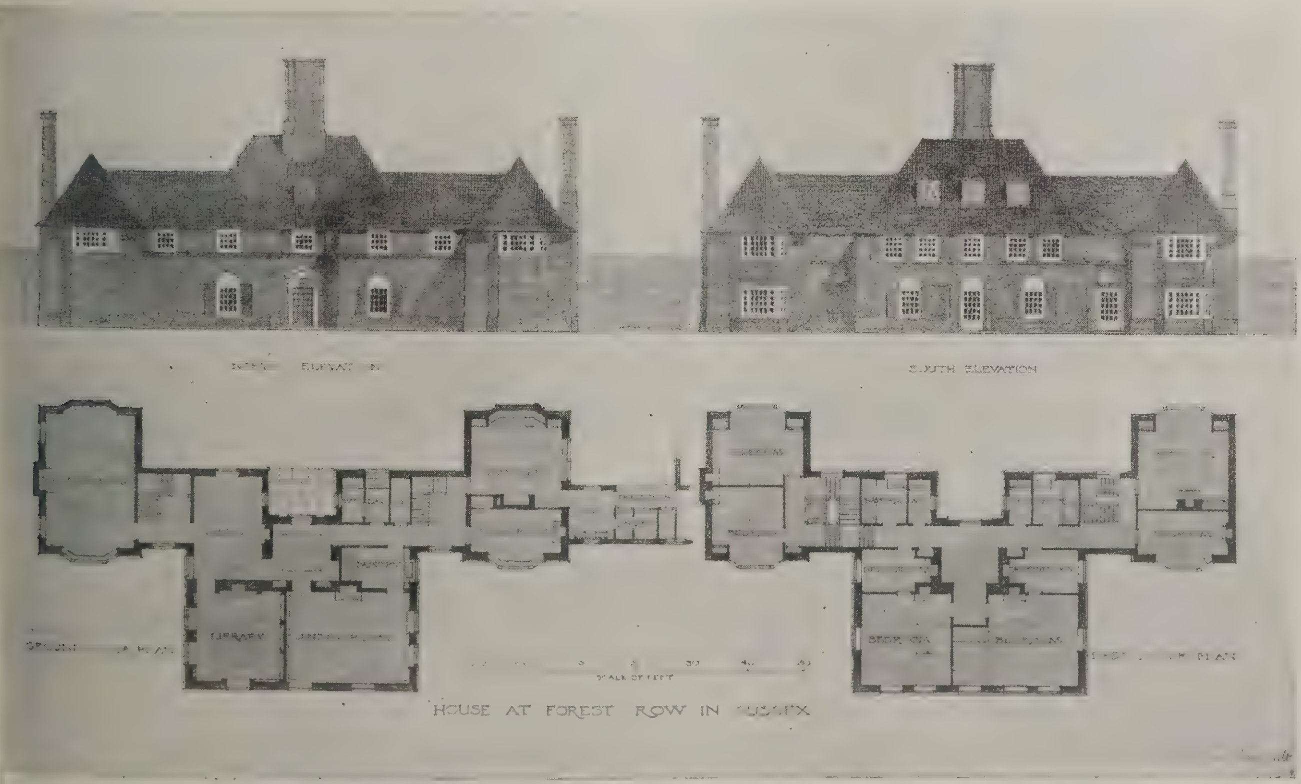
Hexham.

The Manchester Housing Committee has decided to build 1,400 houses under the new subsidy scheme in the present financial year, which ends in March, 1924. Whether they will be built by private companies or the municipality or both is unsettled.

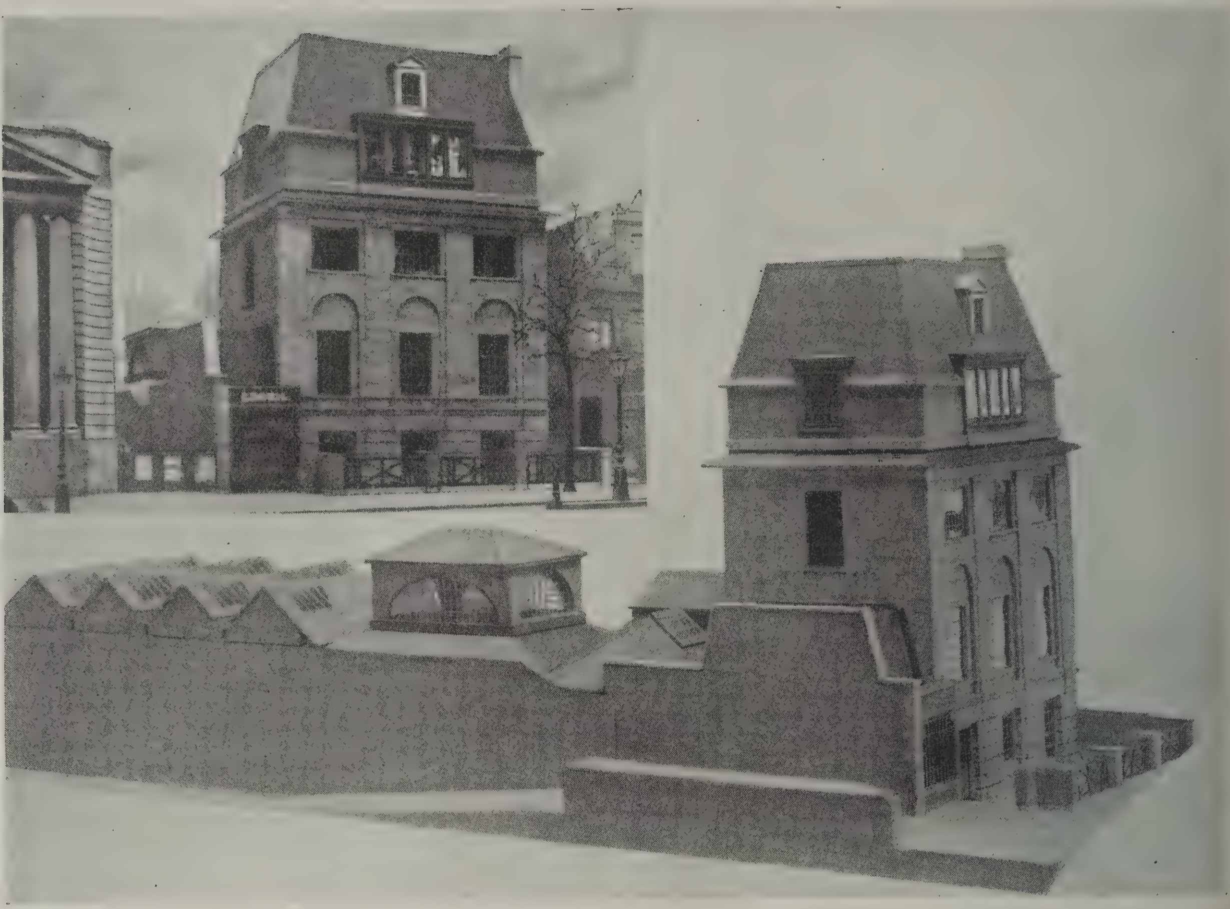
Mr. William Hemingway, A.R.I.B.A., clerk of works on Rawtenstall Corporation Housing Scheme, has been appointed temporary whole time architect to Haslingden Board of Guardians, at a salary of £450 for the first year, £500 for the second, and £550 for the third. There were 66 applications for the position.

Newcastle Corporation Town Improvement and Streets Committee last week passed plans for 384 dwellings in Rochester Street, Walker, on similar lines to those built by the Sutton Trustees in Barrack Road. The dwellings will consist of two, three, and four-roomed houses, and are being erected by the Corporation without any subsidy from the Government.

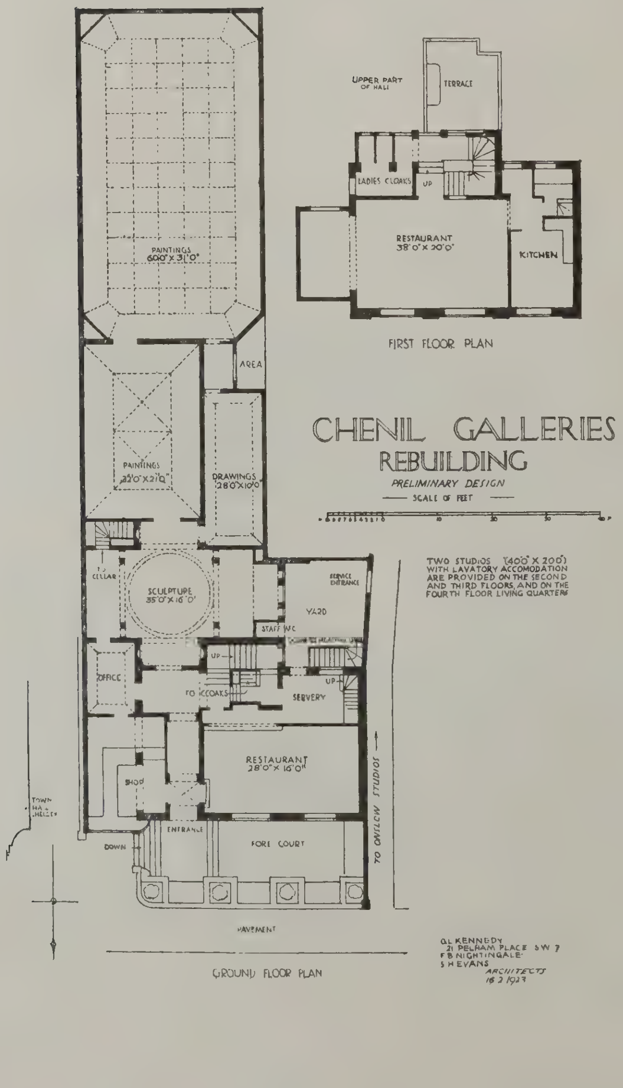
We regret to announce the death at Exeter, last Sunday, of Mr. Frederick Morris Drake, stained glass expert and designer, author and novelist, in his 49th year. The deceased was a member of an Exeter family which has been making stained glass for approaching two centuries and was a much sought-after lecturer on the subject. He was to have lectured on May 2 before the Royal Society of Arts on "The Fourteenth Century Revolution in Glass Painting." Besides his novels, Mr. Drake wrote, in conjunction with his brother, Mr. W. Drake, two standard volumes on old stained glass, "Saints and their Emblems," and "History of English Glass Painting." He was a writer of adventure and the sea. The best known of his novels are "Wrack," "The Salving of a Derelict," and "W. O. 2." "The Doom Window" dealt with the art of glass painting.



HOUSE AT FOREST ROW. W. Curtis Green, A.R.A. Elect,



PRELIMINARY DESIGN FOR REBUILDING CHENIL GALLERIES, CHELSEA.
Messrs. G. L. KENNEDY, F. B. NIGHTINGALE and S. H. EVANS, Architects.



Chenil Galleries Rebuilding.

We show on this page a tentative design for rebuilding the Chenil Galleries on a site which occupies an important position in King's Road, Chelsea, adjoining the Town Hall. The architects, Messrs. G. L. Kennedy, F. B. Nightingale and S. H. Evans, have prepared a scheme for this art centre, which, besides commodious exhibition space, would include a café, an art school and library, and facilities for an artistic, musical and literary club.

"Chenil's" was founded by Mr. John Knewstub in 1905, its present premises then being a private residence, to carry on the business of an Art Gallery, artists' colourmen, picture framers, etc., and the first exhibition was of the drawings of Augustus John and William Orpen. Many notable first exhibitions followed, including those of Ambrose McEvoy, Eric Gill, J. D. Innes, Robert Gregory, Mark Gertler, and others. The activities of the company have been mainly confined to furthering the interests of the younger artists, and its opportunities have been restricted solely by the limited space available.

Anyone interested in the scheme for a Chelsea art centre will receive full particulars on application to the Chenil Galleries, King's Road, Chelsea, S.W.3.

Forthcoming Events.

Friday, May 4.—Town Planning Institute. Meeting at the Institution of Mechanical Engineers, Storey's Gate, St. James' Park, S.W. Paper by Professor S. D. Adshead, M.A., F.R.I.B.A., entitled "Replanning Congested Areas." 6 p.m.

Saturday, May 5.—Royal Institute of British Architects. Visit to the Port of London Authority's new offices.

Monday, May 7.—Annual General Meeting, at 9 Conduit Street, W. 8 p.m.

Surveyors' Institution. Meeting at 12, Great George Street, Westminster, S.W. Paper by Mr. C. H. Bedells, F.S.I., entitled "Some Functions of a Surveyor under the Settled Land Acts, 1882-1890, and Part 2 of the Law of Property Act, 1922." 8 p.m.

Saturday, May 12.—Architectural Association. Visit to the Stadium and British Empire Exhibition Buildings at Wembley. To meet at Resident Architect's office. 2.30 p.m.

Institution of Municipal and County Engineers. District Meetings at Nuneaton and Merthyr.

New Books.

"Sir Christopher Wren and Tom Tower, Oxford." By W. Douglas Caröe, F.S.A. Oxford, at the Clarendon Press. 25s. net.

Mr. Caröe has added an interesting and scholarly book to the mass of literature dealing with the period of Wren. His intention was to write a comprehensive architectural record of Christ Church, but the war intervened, preventing the accomplishment of the scheme, and lack of time led to the production of the present volume, which is chiefly concerned with the subject of seven unpublished letters written by Wren to Dr. John Fell, the Bishop of Oxford, who employed him as architect for the completion of Tom Tower. Mr. Caröe has written a singularly well expressed and timely book, which throws much light on Wren's methods, and once more proves the author's possession of a literary and antiquarian knowledge of the first order.

The letters, which are seven in number, are unusually interesting, since they give a very clear idea of the manner in which buildings were carried out in the times of the Stuarts, and show the extraordinary care and precision of Wren's methods, while they are also evidence that then, as now, much work was done under architect's directions from a distance. Few architects, having a commission of the importance of Tom Tower, would fail to visit it at frequent intervals, yet the Tower was evidently built and completed without Wren's seeing it, if we may judge from the fact that no mention of such a visit is made in any one of the letters given. Wren applied to the Bishop for the "ground plott" he needed to make out his drawings, and then criticised its evident inaccuracies, asking to be furnished with more precise and accurate information. Again, in supplying his measurements of the work to be done, he leaves it to the Bishop to check his prices. These two items show the relative influence of difficulties of communication had on the conduct of building three centuries ago.

On the other hand, whenever the closest and most detailed constructural information could be conveyed in writing Wren gave directions which show that he possessed the careful and accurate practical knowledge of an experienced clerk of the works of to-day. Wren appears to have accepted a Gothic character of design more willingly in the Tower than he did in the case of some of the City churches in which he was constrained by the expressed wish of the parish authorities, and Tom Tower is not only a fine example of the treatment of mass in conformity with Tudor precedents, but its detail by no means belongs to the hybrid character which he indulged in in the case of St. Dunstan's in the East and others of his works.

Some of Wren's letters—notably that in which he dissuades the Bishop from attempting to convert the upper portion of the Tower into an observatory—are of great value as showing the tactful manner in which he obtained his own way.

We have not space to allude to the numerous and interesting references to other cognate matters which have been included in the book by Mr. Caröe, but it suffices to say that the work is no dry commentary on past documents and events, but forms an illuminating essay on the methods of the times which enables us by analogy to better understand the conditions under which Wren worked.

The book is most attractively produced and will be deservedly treasured by those who possess it.

"The Workmen's Compensation Act, 1906." With Notes, Rules, Orders and Regulations. By W. Addington Willis, LL.B. London: Butterworth & Co. and Shaw & Sons. Price 15s.

Since Mr. Willis first gave the public the benefit of his labours respecting Workmen's Compensation Acts, he has produced twenty-one editions, the present being the thirteenth since the 1906 Act came into force. The latest edition has been revised to the end of 1922, and, of course, the great value of such a work as this is that it should be kept up to date.

Mr. Willis makes of what might well be a dry subject one that may be considered both with interest and profit, his exposition being extremely lucid and for the most part convincing.

We may venture to differ from some of the legal interpretations of accidents as bearing hardly upon the employer; but the Law is far stronger than the individual, and we can but bow our heads in resignation. Every consideration should be given to a workman who is injured through the default of the employer, but there seems to be a good deal of latitude in such interpretation. On the other hand we find cases where the judicial mind has reacted unfavourably upon the workman in most curious fashion (see Smith *v.* Morrison). But such curious decisions are *raræ aves*; another instance being Charles R. Davidson & Co. *v.* M‘Robb or Officer.

The definition of "wilful misconduct" by Bramwell, L.J., in Lewis *v.* G.W.R. Co. is very illuminating. So also was the finding in Nicol *v.* Young's Paraffin Light and Mineral Oil Co.

Mr. Willis falls at times into a common error (but though common, it is no less an error) of using the word "verbal" where he should use "oral." The very comprehensive Table of Cases at the commencement and the careful Index at the end deserve notice; but the former will bear rearrangement in many places, to render it sub-alphabetically perfect.

"Spons' Architects' and Builders' Pocket Price Book, 1923." Edited by Clyde Young, F.R.I.B.A. London: E. & F. N. Spon, Ltd. 5s.

When a book reaches its forty-ninth edition it needs neither recommendation nor detailed notice in the Press; it is its own best trumpeter. It is a pleasure to recognise the reduction in prices from the inflated level they attained; though there is, of course, still room for improvement. And in this connection it is interesting to compare the actual cost of certain buildings with what would be the cost at the present day (see pages 5 and 6). Some of the constants of Labour make unsatisfactory reading, but this is a fault of the times, which so many deplore.

"The times are out of joint.
Oh, cursed spite!
That no one seems inclined
To set them right."

These lines are slightly adapted, but represent the true state of affairs.

"Courage in Colour applied to Personal Attire and Home Surroundings." By R. Goulburn Lovell, A.R.I.B.A., M.S.A. London: Charles Griffin & Co., Ltd., Exeter Street, W.C. 6s. net.

This little treatise, with its facsimile plates and pocket containing two revolving discs to show what colours are complementary to one another, will doubtless be of use to many. The treatise is intended to help those who have to choose colours for specific purposes, to emphasise the importance of colour in our daily life and thereby as an assistance to those whose work is of a decorative nature. The author's theory is that while most people can appreciate beautiful colouring, it is probable that only a few realise that the manipulation and arrangement of colours can be reduced to almost an exact science. Though this statement contains much that is true, it is, we think, an exaggeration, and believe there will be always less difference of opinion on questions of form than on those concerning colour which, owing to variations in our sensitiveness to colour, we probably estimate very differently.

"Giovanni Battista Piranesi: A Critical Study with a list of his published works and detailed Catalogues of the Prisons and Views of Rome." By Arthur M. Hind of the British Museum. The Cotswold Gallery, 59 Frith Street, W. 31s. 6d. net.

This is a limited edition of 500 copies, of which 440 are being issued by the Cotswold Gallery, and 60 by a New York publisher.

The work consists of a short biographical notice, some twenty pages of notes on Piranesi's works, a Catalogue, and a list of Piranesi's published works. The most valuable and interesting portion of the volume is a series of illustrations of Piranesi's works very well reproduced on 74 plates containing two illustrations on each, and forming the complete series of the Views of Rome, with selected examples from Piranesi's other works. It is thus a very valuable book for the collector, and has been produced with great care and thoroughness. We can quite understand that Mr. Hind found the work, with the necessary comparisons extending over many years and a variety of collections, one of great difficulty. He says that the collections examined must be a small tithe of those which exist in the libraries of great English houses whose representatives made the grand tour in the eighteenth century; but Mr. Hind strongly advises "any other Piranesi enthusiast against diving into further sections of the master's work with the aim of continuing the detailed catalogue, unless he is prepared for athletics in addition to research."

"Eight Chapters on English Mediæval Art: A Study in English Economics." By E. S. Prior, A.R.A. Cambridge, at the University Press. 6s. net.

These chapters are in substance the "Carpenter" Lectures, as they were given at University College, London, in 1911, recast for Cambridge students, and aim at being a general review of the Church building arts in England. Art craftsmanship, Mr. Prior says, in its power of recording social and economic history, is unfamiliar to our practice of art which knows only its taste and design.

The author says that the Saxon refusal to build to models of Continental Church design was based on no lack of accomplishment or learning, but was the result of Saxon art being a craft in the hands of learned churchmen whose architecture was based on a formula and not a creative process, while in structural expression it was inefficient, for the same reason that much modern building is puerile because it subordinates practical uses to stylistic design. On the other hand, Saxon draughtsmanship and painting had a quality and expressiveness far in advance of any that was shown in the succeeding Norman epoch.

The earlier influences which finally modified and differentiated English architecture from that of the Continent are analysed and described by Mr. Prior, and also the influence of the monastic orders which were responsible for the erection of so many of our greater churches. The author says that the outcome of the rivalry of the Cluniac expression standing for luxury and the Cistercian for temperance established the natural expression of English masoncraft, and when the rivalry subsided towards the end of the twelfth century Church building was found to be English Gothic, successive waves of either influence giving the English artist his opportunity.

Mr. Prior rightly ridicules the extreme theories which have been advanced, both here and in America, as to the right definition of standard of criticism of mediæval art, and as to the Comacine and Freemason theories we believe with him that broader and simpler explanations can be made for the past, though these may not be as attractive as visions of secret societies and hidden formulæ handed down from generation to generation by those initiated into mysteries.

But we think that the author is like many others a little prejudiced in favour of the earlier as opposed to the later stages of mediæval design, and we believe that a very good case can be made out in support of the contention that Perpendicular Art at its best was rather the culmination of mediæval art to be followed by an abrupt drop marking a stage in a steep decline from an apex reached in earlier centuries. Art inevitably concerned itself more and more with secular buildings, but that in itself was rather the mark of a growth of civilisation than a decline of art. But whether we agree with Mr. Prior or not, he has certainly given us a most interesting analysis of a subject on which he is exceptionally well qualified to speak.

"Standard Method of Measurement of Building Work." The Surveyors' Institution. 10s. 6d. net.

"The Standard Method of Measurement of Building Work," recently published by the Surveyors' Institution, is the product of the labours of a Joint Committee appointed in 1918 nominated from the members of the Surveyors' Institution, the National Federation of Building Trades Employers and the Institution of Builders. The names of the members of the Committee, which are given in the Preface to the volume, are sufficient guarantee of the skill and experience brought into the deliberations of the Committee and the result in the form of the volume under review is a concise and admirably compiled book of reference which, to quote the Preface, "is founded upon the practice of the leading London quantity surveyors."

The inclusion of standard methods of measurement of reinforced concrete work will be especially appreciated by surveyors in practice.

Objection will be raised to the inclusion of extra hoisting of brickwork above 40 feet. It has not been customary hitherto among quantity surveyors to measure this item, and it will be found in practice that the extra trouble involved in keeping the several heights separate will not be appreciated by estimators, the probability being that the item will be disregarded in competitive pricing.

It is hoped that the "Standard Method of Measurement of Building Work" will become in general use for the instruction of students, many of the text-books now in use being out of date and differing in many respects from the general practice of quantity surveyors.

Dumfries Dean of Guild Court on the 27th ult. passed plans by the Marist Brothers, St. Joseph's College, for the erection of a church adjoining their present buildings. It is to be built with local sandstone, and will cost £10,000.

Major-General Sir Charles Rosenthal, K.C.B., C.M.G., D.S.O., F.R.I.B.A., has been elected President of the Institute of Architects of New South Wales. He was awarded the C.B. in 1915, rose to be Major-General in May 1918, in command of the 2nd Australian Division, taking part in the capture of Montbrebain, the final battle of the Australian Corps in the Great War. General Rosenthal was wounded five times, mentioned in despatches seven times, and also awarded the French Croix de Guerre with Palms and Legion of Honour.

Planning of London and New York.

A meeting of the Town Planning Institute was held at 92 Victoria Street, Westminster, on Friday, the 20th ult., Mr. H. V. Lanchester, F.R.I.B.A., president, in the chair.

Mr. Thomas Adams, F.S.I., in the course of a paper, said that comparisons between great cities were always interesting, and no two cities were more interesting to compare than London and New York. They were the two greatest in size and importance in the world, and this century will probably determine which of them is going to outdistance the other in respect of size. Might not their relative importance and progress be largely determined by the care and vigilance shown in either case by planning for the future ? Just as the County of London more correctly represented London as a civic entity than the small administrative unit called the City of London, so the combined borough of Manhattan, Queens, Brooklyn and Bronx represents New York as a city rather than the older administrative unit lying in the comparatively small area on Manhattan Island. But London long ago spread its influence beyond the county boundaries, and New York beyond the boundaries of its four boroughs. The area of Greater London, for the purposes of planning, might be regarded as extending to a radius of 15 miles or more from Charing Cross, and to include about 1,000 square miles and a population of approximately 8,000,000. This was the area dealt with by the Arterial Roads Conferences in 1913–14 as appropriate for studying the highway communications of Greater London. These Conferences carried out their studies in six sections or sectors. It is interesting to note that the still larger region selected for study in the Western Metropolis is also divided into six sectors. Although New York is growing up with a greater density of population than London, it has to plan for a wider area. This is mainly due to the character of its site with its difficult physical features. The great business heart of New York will always be Manhattan Island, about 13 miles long by 3 miles wide. Apart from a narrow neck that is only separated by the canal-like Harlem River on the north from Bronx and Westchester County, through which growth can extend without enormously expensive tunnels and bridges, there is no direction outside of Manhattan where New York can extend without being hampered by physical obstructions.

Great rivers intersecting a city provide wonderful harbour facilities, but of course add to the difficulties of city expansion. What is called "commuting" in New York—the travelling between the country or suburban home and the place of work—has greatly increased in recent years. Commuting to a distance of 15 or 20 miles is quite common, and cases of daily journeys of 50 to 60 miles are not unknown. A distance of 15 miles from down town Manhattan to beyond its northern extremity still can be travelled for a cost of only 5 cents. It costs 1s. 3d. to travel the 15 miles between Vauxhall and Hampton Court.

The area included in the region being dealt with in the plan of New York and its environs which is now in the course of preparation, and for which a preliminary sum of £100,000 has been appropriated to be spent in five years, comprises about 5,200 acres. The population within this area is estimated at approximately 9,000,000. If the growth continues at the same ratio as at present, it is computed that it will reach an aggregation of 29,000,000 in 2000.

If we select a region in the London area of the same size as the New York region, it would include all Middlesex and Surrey, about half of Kent, Essex and Hertfordshire, and portions of Berkshire, Buckinghamshire and Sussex. 5,200 square miles would include all land within about 40 miles radius, and some portions extending to 50 miles from the centre of London. On the north-east it would extend beyond Southend and include Colchester ; on the north it would extend to Biggleswade and Bedford ; on the north-west to Leighton Buzzard and Aylesbury, and extend to include Oxford ; on the west it would include Aldershot and Guildford ; on the south it would include corridors to Brighton and Eastbourne, and on the south-west it would go to Lewes, with extensions to Hastings, Ashford and Faversham.

The city is a place where people congregate to engage in industry and to transact business—and where to accomplish these things they need houses to live in, means to travel, to obtain drinking water, to dispose of wastes, to educate their children, and to enjoy facilities for recreation and culture. That such a place should function to the best advantage must surely be the aspiration of the people for whose convenience, enjoyment and profit it exists—however far they may fall short of attaining it as a consequence of ignorance or misdirection of effort. In making plans for the building of a city or for its expansion, that aspiration must be the guiding thought. If it is order and beauty that is sought either by creative design or by restraint of liberty, then the individual purpose must be merged in that of securing the common weal. Any striving after efficiency must fail in the long run unless the fruits of those efforts are shared in common. When we speak in terms of building a city like London or New York—we mean of course the city of to-morrow, not of to-day, for there is a city of to-morrow, that shall be very different from the city of to-day.

To him who says, "It is too late to plan such cities as London and New York," let us call the witnesses around us—the dynamic forces that prevent the city from ceasing to grow either for better or for worse—the new trends of industry, of forms of distribution, of standards of comfort, of transportation and in height and volume in building. The London and New York of the future that need planning are new cities—new in scale, in condition, in tendencies, in dangers and in opportunities. As we look around and try to pry into the future it is difficult to say whether it is the dangers or the opportunities that appal us most. Therein lies the need of the plan and the almost unconquerable difficulties of the planners. Too late? No!—not for planning—only for letting things alone.

Manhattan was planned in rectangular fashion, with wide streets, in 1811. Criticisms have been made of this plan. But if the critics placed themselves in the position of those who made it, could they truly say that it was not a good plan? When it was made there were no railroads, nor street railways, nor fast steamships of great size, nor automobiles, nor high buildings. The first horse-car was operated in Fourth Avenue in 1832; and up to 1873 all street railways were operated with horses. The first elevated railroad in New York was not operated until 1868; and it is only as recently as 1904 that the first rapid transit subway express line was placed in operation. The motor-bus is the latest step in the evolution of 'bus traffic that has been going on for 74 years. Pleasure and commercial motor-cars and the sky-scrapers have developed side by side within the memory of most; and the greatest problems of the modern city are not the result of past negligence, but of conditions created by new forms of building, of transportation and of transit in the past 25 years. The present generation has created them, and it is their duty to solve them.

If one turns from the plan of New York to the plan of Washington, we find greater spaciousness, but the site permitted it, and the object was different. We also find diagonal avenues, some of which might have been introduced into Manhattan with advantage, but not to the same degree of advantage, having regard to the different physical characteristics of the site. Whatever defects the New York plan of 1811 may have had—they are small compared to the defects of the nineteenth and twentieth century planning of the surrounding areas—if consideration is given to the conditions and knowledge existing during the respective times when these plans were made.

The new part of the city of Edinburgh—one of the most beautiful cities in the world—was planned during the same period as Washington and New York. It was laid out in squares, crescents and straight streets by Craig, the architect. It differs from many other cities that have been planned in that the buildings were erected in great groups by architects—amongst whom were the Brothers Adam. In addition to the natural beauty of the site, it has the elements of beauty in the unity, harmony, scale and adaptability of the design of its buildings—all because an adequate degree of architectural control was permitted in the building of the city. For 30 or 40 years the architects of Edinburgh were dominant in influence—with the result that few cities attract more visitors to enjoy its beauties and pay tribute to the vision of the city fathers of 1780 to 1815. But later the railroad came—the plan of the architects fell to pieces—freight yards cut off parts of squares and crescents, and blocked main thoroughfares, and since then Edinburgh has been allowed to grow. During the growth of railroad transportation highways became less important, and town planning became neglected. No one appears to have been able to visualise what was going to happen, and a long period of drift set in. Now the highway is coming back to its own—it is competing with the railroad for many purposes, and with the renaissance of the highway travel has come the revival also of city and town planning.

An organisation has been set up to study New York's problem from other angles. A meeting was held in May of last year, when the Committee was addressed by Mr. H. Hoover and other Ministers. That Committee consisted of Messrs. C. D. Norton, Robert De Forest, Frederic A. Delano, John M. Glenn, Dwight W. Morrow and Frank L. Polk, with Mr. Norton as chairman. To their great loss, Mr. Norton died in March last. Mr. Norton and Mr. Delano were the motive force behind the Chicago town planning movement which resulted in Mr. Burnham's plan.

A physical survey, of which Mr. Nelson P. Lewis is in charge, has been in hand for a year. Then comes the economic and industrial survey, with Professor McCrea and Professor Robert M. Haig in charge. Then the social and living conditions, of which Mr. Shelby M. Harrison has charge. Finally, there is the legal survey under Messrs. Edward M. Basset and Frank B. Williams.

Last October Mr. Raymond Unwin paid a visit to New York, and suggested in a report to the Committee what appeared to him to be the hypothesis which should be the basis for any further investigation. That report resulted in a broadening of the scope of the survey. While the experts are collecting data it was found advisable to appoint a group of planners to study simultaneously the problems needing to be solved.

The Committee on the Plan of New York and Environs, acting in co-operation with the Russell Sage Foundation, appointed a group of city planners to make a preliminary study of the environs of the city. The area to be studied comprises about 5,000 square miles and extends for a radius of from 30 to 50 miles from Manhattan. The six sectors have been allocated to the members of the following group who have been appointed, under the chairmanship of Mr. Thomas Adams, to make a joint report on the opportunities and dangers in connection with the problems of the use and development of the land, communications, decentralisation of population and industries, and open spaces:—

Thomas Adams, of Messrs. Thomas Adams & Longstreth Thompson, Town Planning Consultants, of London and New York.

Harland Bartholomew, City Planning Consultant to the City of St. Louis.

Edward Bennett, of Messrs. Bennett, Parsons, Front & Thomas.

George B. Ford, of the Technical Advisory Corporation, New York.

John Nolen, landscape architect, of Cambridge, Mass.

Frederick Law Olmsted, of Olmsted Brothers, the famous firm of landscape architects.

The report to be made by the group is to be submitted before the first of October.

Bristol Society of Architects.

At the annual general meeting of the Bristol Society of Architects the president, Mr. G. C. Lawrence, A.R.I.B.A., was in the chair. A report of the year's work referred to the progress that had been made in the formation of the "Wessex Society of Architects." The Bristol Society had for its province the counties of Gloucester, Somerset, Wilts, and Dorset, and at the suggestion of the Royal Institute of British Architects (to which the Bristol Society is allied), amalgamation with the Gloucestershire Architectural Association has been accomplished, each partner in the new society retaining its local function and individuality. It is hoped that a society embracing the southern portion of the province will be formed to complete the scheme.

The hon. treasurer, Mr. J. Bertram Wills, F.R.I.B.A., presented a satisfactory report on the finances of the society, after which the scrutineers reported the result of the annual election as follows: President, Mr. W. S. Skinner, F.R.I.B.A.; vice-presidents, Messrs. G. C. Lawrence, A.R.I.B.A., and C. F. W. Dening, F.R.I.B.A.; council, Messrs. G. C. Awdry, F.R.I.B.A., A. B. Botterill, A.R.I.B.A., Mowbray A. Green, F.R.I.B.A., G. H. Oatley, F.R.I.B.A., J. Bertram Wills, F.R.I.B.A. (hon. treasurer), and T. H. Weston, F.R.I.B.A.; associate members of council, Messrs. T. A. Skinner, A.R.I.B.A., and E. G. Rodway, A.R.I.B.A.; hon. secretary, W. J. Stenner, A.R.I.B.A.

Votes of thanks were accorded the retiring council and officers, and a resolution, proposed by Mr. G. C. Awdry, and seconded by Mr. Mowbray A. Green, desired to place on record the services rendered by the president, Mr. G. C. Lawrence, during his twice prolonged spell of office covering a period of four years, not only to the Bristol Society, but to the cause of architecture generally, special reference being made to the part Mr. Lawrence took in the launching of the Royal West of England Academy School of Architecture, opened by the Prince of Wales. Sir Frank Wills, F.R.I.B.A., supported the resolution, which was carried unanimously, after Mr. A. J. Saise, seconded by Mr. R. T. Green, had expressed the thanks of the students of the school.

At the meeting of the Coventry City Council on April 24 it was reported by the Housing Committee that the local Society of Architects had forwarded a resolution stating that in the event of the Corporation carrying out any further housing schemes, in view of the approaching housing legislation, the Society considered that the claims of local architects should not be overlooked, and that all work in connection with any such Corporation housing scheme should be carried out by local architects. The Committee had resolved that the Society be informed that their views will be borne in mind when any further housing schemes are undertaken.

The Finance of the Housing Bill.

The National Housing and Town Planning Council issued a letter at the week-end to every member of Parliament on the financial resolution relative to the Housing Bill which was submitted on Monday and Wednesday last and by which the House of Commons was asked to decide the amount to be given annually for twenty years in aid of those local authorities taking action under the provisions of the Bill.

The letter is as follows :—

During the past three months the Ministry of Health has been engaged in negotiations concerning housing terms with a group of great local authorities (headed by the Manchester City Council). The proposal as first submitted to the Government by this group provided that an annual subsidy of £6 per house should be given to local authorities for the full period of the loan.

THE MANCHESTER TERMS.

After long discussions and many meetings a bargain was, however, struck between the parties to the Conference, and under this bargain the Government agreed to make a grant of £6 per house per year for 20 years to local authorities for the purposes of the Bill.

It will be of service to make clear the following.

The period of 20 years does not represent the actual loans period. But the Treasury persuaded the Manchester Conference to accept a 20 years period, and in fixing the amount for this the members of the Conference studied actuarial calculations relative to the loss on a non-parlour cottage costing £425 to build and letting at a weekly rent of 7s. (rates additional), and erected with the aid of capital borrowed at 5 per cent. for the first five years, 4½ per cent. for the next five years, and 4 per cent. for the rest of the loan period.

The loan periods taken were 20 years for roads, 30 years for sewers, 60 years for building and 80 years for land. Ninety per cent. of the total cost thus represented the cost of building and land.

In view of these facts it is hardly necessary to point out that unless local authorities are imprudently willing to bear all the loss after the first 20 years they must place aside at least £2 of the £6 paid to them year by year for investment and accumulation to meet the burden arising in the later periods of the loan.

THE ATTITUDE OF LOCAL AUTHORITIES OUTSIDE THE GREAT TOWNS.

In view of the acceptance of these terms by the great local authorities it will be of little service to discuss the adequacy or otherwise of the terms accepted by them.

But it is of vital importance that members of the House of Commons should be made fully aware of the fact that these terms do not represent any kind of bargain between, on the one hand, the Government and, on the other hand, the local authorities for (*a*) *rural areas,* (*b*) *areas of the industrial village type or industrial areas with small rateable values and large housing needs, and* (*c*) *the industrial areas of Scotland.*

On the contrary, these terms are emphatically rejected as inadequate and unacceptable to the great majority of the local authorities outside great towns.

It is deeply to be regretted that in the course of the public controversy concerning the parlour an aspect of the Bill of such vital importance to local authorities has been neglected. But now that the real issues are becoming clear there is a rapidly growing feeling of disquietude (deepening into indignation) amongst most of the local authorities outside the group of the great towns concerning the application in a cast-iron fashion of a scheme of financial aid which is hopelessly out of relation to the varying financial needs of the local authorities of the country.

The position is rendered all the more grave because the Government have so far refused to give any kind of assurance to the smaller urban authorities and the local authorities in the rural areas of England and Wales and the Scottish Local Authorities that their special financial difficulties will be made the subject of adequate treatment.

THE CASE FOR SCOTLAND.

The hard case of Scotland is so striking as to call for special attention.

In the course of questions asked on April 24 the Under-Secretary for Scotland admitted that the Scottish Board of Health had made representations to the Government pleading that there should be a higher grant than £6 per house for 20 years in the case of Scotland. This plea can be fully justified on the ground of climatic and other conditions.

Concerning this subject the Scottish Local Authorities estimate that there will be an additional cost of £125 per house in Scotland as compared with the South of England. The Scottish Board of Health place the estimate at a little more than £20—a figure which is quite absurdly inadequate. A correct figure will probably be the mean between the two amounts—viz., £75 per house.

In view of this substantial difference the present financial provision cannot possibly be regarded as adequate for Scotland.

THE CASE FOR RURAL AREAS.

The case of the English rural local authority is equally urgent and difficult. At the present juncture it is impossible to build cottages cheaply in rural areas. In many cases bricks cannot be bought locally. Stone is in many areas prohibitive in price. The iron work and many of the other building materials have to be brought long distances by rail, and not infrequently heavy cartage charges from the station to the site are incurred.

But whilst the cost of building is not less the revenue on schemes is in the ratio of two to three as compared with the town, with the result that the estimated annual loss in a rural area is proportionately greater, and inevitably so. With wages going down to 25s. per week the rural labourer cannot possibly pay such a high rent as the artisan in the town. Special financial treatment is, moreover, needed in many populous villages. The local authorities governing these semi-suburban areas can prove to the hilt that financial assistance must be given on a larger scale than that found necessary in great towns with higher standards of rent.

A CAST-IRON FLAT RATE.

The crux of the difficulty rests in the desire of the Government to adopt an easy and relatively slip-shod plan of imposing a cast-iron flat rate on the whole country, and this despite the fact that it is common knowledge that the bargain struck leaves out of its scope the problem of the smaller urban and rural areas.

It is beyond question that if financial resolutions are passed in their present form the majority of the local authorities outside the large towns will have administered to them an icy douche of discouragement in regard to future housing efforts.

A SUGGESTED AMENDMENT TO THE FINANCIAL RESOLUTION.

In view of the gravity of the issue thus reached we are asking members of all parties in the House of Commons representing rural areas in Great Britain, industrial village areas in England and Wales, and the industrial areas of Scotland to support an amendment which, we understand, has been placed on the Order Paper, an amendment providing that the £6 grant for 20 years proposed by the Government shall apply to towns with a population of upwards of 250,000. In other words, it is suggested that the financial resolution should be amended to embody the exact bargain reached as a result of negotiations between the Manchester Committee and the Ministry of Health.

With this provision the Housing Bill will then be made applicable to those local authorities to whom the bargain applies, and the Government will be called on to explain to the representatives of all the areas outside the great areas why it is that in their negotiations they failed to bring into the range of discussion the needs of areas representing nearly 60 per cent. of the housing needs of the country and embodying problems which in their kind and character call for equal consideration and sympathy with those prevailing in the great centres of population.

Housing reformers most earnestly desire that when this Bill emerges from the various stages it shall render a great service to the country.

We are all desirous of relieving the terrible housing needs of the great towns. But there are to be found in small towns in populous industrial areas and in rural villages cases of housing need which equally call for remedial action.

On questions of housing reform there should be a "Truce of God" to party conflict between all members of the House. And in this spirit this letter has been written.

SPECIAL NOTE RELATIVE TO THE FINANCE OF HOUSING SCHEMES IN RURAL AREAS.

In the course of the debate on Wednesday, April 25, the Attorney-General said : "Of course it was necessary to consider the financial aspects with regard to rural areas. We have had worked out for us very carefully what the cost will be, and we have the figures, and they show that it would be possible with this scheme for the local authority in a rural area to erect a house and find just a little less by way of subsidy than the State has to find in order to make the scheme a success, and the rent which is taken in order to arrive at that calculation is an average rent of 5s. 6d. a week."

In view of this statement the National Housing and Town Planning Council state that with a cost for a non-parlour cottage of £425 and a rent of 5s. per week the loss will be £13 7s. 6d. for the *whole period of 60 years* (subject to a slight fall when the 20 and 30 year loans for roads and sewers are paid off).

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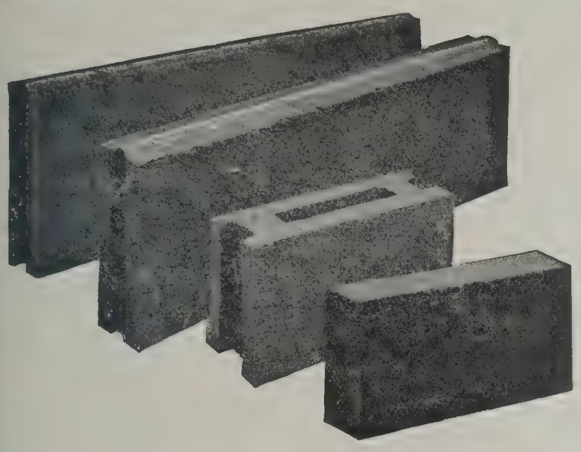

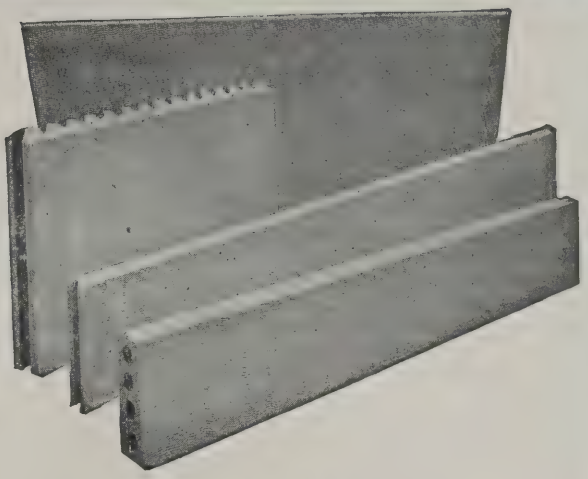

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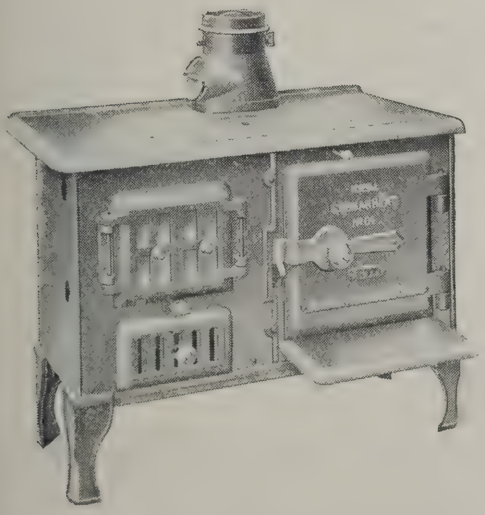

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In the case of a parlour cottage costing £500 (and a rent of 5s. 6d. per week) the loss will be £16 5s. 6d. for 60 years. In the majority of cases the money is borrowed by smaller local authorities from the Public Works Loans Commissioners.

It may be objected that the interest is taken at 5 per cent. for the whole period. But this rate (5 per cent.) is the rate at which the Public Works Loans Commissioners are at present lending. The Commissioners, moreover, insist that the money borrowed from them for building shall be borrowed for the full periods of the loans, and the 5 per cent. will be a constant charge for 60 years.

The value of £6 for twenty years is not more than £4 for 60 years. The position is therefore that the State will give £4 and the local authority £9 7s. 6d. in the case of the non-parlour cottage.

The grant from the State thus represents less than one-third of the loss falling on areas which are far poorer than the great cities.

Members for rural areas will at once realise that these figures place absolutely beyond question the need for special treatment of rural areas.

Gloucestershire Architectural Association.

A combined meeting of the Bristol Society of Architects and the Gloucestershire Architectural Association took place at the Royal West of England Academy, Bristol, when an address was given by Mr. H. Bulkeley Creswell, F.R.I.B.A., on "The Architect and the Commercial Man."

Mr. G. C. Lawrence, A.R.I.B.A., President of the Bristol Society, before introducing the lecturer, referred briefly to the federation of the Society and the Association, under the title of "The Wessex Society of Architects," which would shortly be an accomplished fact.

Mr. H. B. Creswell, in the course of his address, said that the subject of his remarks was one of the greatest importance to a society of professional men such as was now being formed by the federation of the Bristol Society and the Gloucestershire Association. Unless the arts and the professions forsook apathy and made a definite stand against commercial exploitations, the commercial man would put architecture (and architects) into his pocket, cheapen it, and sicken the world with twopenny-halfpenny imitations of the real thing just as he had in great part, already pocketed authors, journalists, engineers, craftsmen, painters, and sculptors, and deteriorated the output and falsified the purpose of those arts. It was the desire of the commercial man to invest himself with the individuality of the artist in all fields, and the modern tendency, if carried to its logical conclusion, would result in artists and professional men being kept by their commercial exploiter, for his own profit, as a dairyman keeps cows; and in the absence of prohibitory laws enforced by an army of inspectors, would lead to a spurious and adulterated output being foisted upon the public as the real thing.

The speaker declared, however, that an appeal to mere expediency, though it might bring the matter home to the commercially minded, was not the true ground of appeal to the artist and the professional man; the contest, they all knew, lay not across material, but across spiritual barriers. Mr. H. Wilson, the architect and art worker, was lately reported in the papers as having said on a public occasion that "a commercial career was scarcely possible for a human being." Mr. Guy Kendall, Headmaster of University College School, in a signed article in a London evening paper, stated that an Oxford tutor told him that commerce was impossible for the "high honours" man. "He could not," he said, "possibly tolerate the low standard of morality that necessarily prevails in a commercial system, where each for himself and the devil take the hindmost is the rule."

Mr. Creswell impressed the fact that these two camps, which he defined as the camp of service and the camp of gain, did not represent differences in the natures of the men composing them, but in the ideas they stood for; he did not suggest that the professional man was better or worse, as a man, than the commercial. The commercial man could be considered to be the victim of the system he served, for no one would choose that the chief part of his work should consist in obstructing, bettering, and outboasting his rivals instead of getting the work done, and no man would deliberately choose conditions of work which forced him to exploit clap-trap and to deceive the public with substitutions and humbugging advertisements. The result of the system was that there was scarcely any sacred thing that had not been profaned in the hustle of commercial competition; and the speaker expressed the opinion that if the dome of St. Paul's or the fly-leaves of the Westminster Abbey hymn books were thrown open as sites for advertisements, forty shrewd and hard-headed business men would tumble over one another to secure the monopoly.

In commercial life the devil was in it, and if a man did not do the dirtiest thing imaginable as soon as he imagined it, someone else would cut him out, his blessed profits would dwindle, and he would be left with the task of imagining a still dirtier with which to surpass his rival. Two things which unlicensed commercial competition had foisted on life were no less than enormities in the degradation of mankind they implied. One was our system of advertisement; the other, that of the Secret Publicity Agent. The speaker characterised the former as constituting the apotheosis of the braggart; and the growth of the latter as signalising the apotheosis of the liar.

The speaker went on to show that the directing principle in the arts and professions was not obstruction, but help; not gain, but service; and he laid stress on the accepted fact that it was emotion and not reason or expediency which alone directed the actions of individuals and the growth of nations; that this emotion was the human instinct to service; that the principles directing the arts and professions were at one with this human instinct, and that the "principles of commerce" consisted in the effacement of such human instincts.

In conclusion the speaker expressed the view that although it might be urged that as long as commerce had agreed in its code the world outside was not concerned. Yet the world would be very much concerned if the rules of the football scrum were adopted in "bargain week," and should the inhuman commercial code, besides cheating and victimising the public, invade and colour life and popular thought. He contended that this was actually happening and instanced the way in which all things, all men and all achievements, were assessed at their market value in cash in the popular papers. He gave various instances and recalled that he had seen the contract price of professional football players seriously stated at so much per pound of the player's weight in order to make the announcement more succulent to the reader.

Mr. Creswell concluded his remarks by showing the direct threat to the arts and profession of architecture offered by a modern commercial enterprise, and advanced suggestions by which architects could confidently, as an organised profession, repulse and hold at bay the destructive forces directed against them by those whose objective was not good architecture but bad money.

A hearty vote of thanks to Mr. Creswell was proposed by Mr. Awdry, F.R.I.B.A., seconded by the Hon. Secretary of the Gloucestershire Association, Major H. Stratton Davis. The address provoked a lengthy and thoughtful discussion, from which it was apparent that the fearless sincerity of Mr. Creswell's paper had been deeply appreciated.

"The Architect" Fifty Years Ago.

May 3, 1873.

The Royal Exchange.

It was stated in "The Times" of April 25 by Mr. Harley M. Grellier that his father, Mr. William Grellier, was the original designer of the Royal Exchange, and that drawings in his possession were evidence of this, and that Sir William Tite simply adapted Mr. Grellier's designs to the requirements of the Gresham Committee. A reply was given to this by Mr. John H. Steinmitz, who was a pupil in Mr. Tite's office. He says that he can well remember the development of the design from the earliest sketches, and, so far as any design of an Italian character of architecture may claim to be original, Mr. Tite's design was essentially so, and was most certainly no modification or adaptation of any other architect's design.

Messrs. Dixon & Bell, Newcastle-on-Tyne, are the architects for the Milvain Garden City Estate, which is in process of development.

Mr. James Tomkinson, of Llandyrnog, Denbigh, building contractor, who died on March 12, has left £46,126, with net personalty £24,511. The testator gives:—£250 to Gilbert James Teare, "faithful cashier"; £100 to Thomas Chalmers, "late faithful foreman"; £50 to Robert Roberts, foreman; and to other persons in his employ one week's wages.

The Plymouth Housing Committee recommend their Council to adopt a scheme for the provision of 1,120 houses, of which about 700 will be of the non-parlour type, on the North Prospect site. Another recommendation is that application be made to the Minister of Health for approval of the scheme and for sanction to borrow the sum of £524,000 for the houses and for the completion of roads and sewers.

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The Building Trade Crisis.

The ballot papers for voting on the employers' proposals for a "spread-over" 44-hour working week in the building industry have been issued by the National Federation of Building Operatives to the whole of the 14 affiliated trade unions. The workmen's votes will be recorded at their respective branches, the last day fixed for returning ballot papers being May 12, and three days being allowed for the transmission of the ballot results to headquarters.

There are two questions printed on the ballot paper, as follows:—

> (1) Are you in favour of establishing in the National Working Rule agreement a variation of the present working week, and set up what is known as the "spread-over" 44-hour week by a longer working week in the eight summer months, 44 hours for two months, and 41½ for two months?
>
> (2) Are you in favour of maintaining the present maximum 44-hour week for 10 months and 41½ for two months?

The members will signify their decision by placing X against one or other of these questions.

The National Federation has issued with the ballot papers a letter explaining the recent terms of settlement between the operatives' representatives and the employers' representatives. It is pointed out that the agreed interpretation of the "question of 47 hours application" means the employers' application for an extension to 47 hours per week in the eight months of summer time. The phrase as to "whether failing a regional settlement" means that the employers and the operatives in the regions shall meet with a view to arranging a 44, and up to and including a 47 hour or an equivalent, but not exceeding 47-hour average summer working week; that is, it would be competent for a region to retain the 44-hour week or a greater number of hours up to and including 47, or alternatively make such arrangements in summer working that would not exceed an average greater than 47 for the summer time, or an approximate average of 44 for the whole year.

While the method of obtaining the decision of the men is on the basis of regions, the Federation points out that the matter will still be under national control through the operatives' representatives on the National Wages and Conditions Council.

The settlement provided that, in the event of failure to negotiate a regional or national agreement on the hours question, the issue must be referred to arbitration.

General.

The Manchester Education Authority propose to erect an elementary school for about 600 children at Peacock Street, Gorton.

The Portsmouth Health and Housing Committee are considering the erection of another 200 houses on the Portsdown Hill site.

Mr. P. W. Hubbard, M.A., requests us to announce that his new address from and after May 7 will be 58, Haymarket, London, W.

Mr. Percy B. Houfton, of Chesterfield, is architect for fifty houses about to be erected for the Bolsover Colliery Co., Ltd., at Rainworth, near Mansfield, Notts.

The Wrexham Town Council last week resolved to extend the Corporation markets and build shops costing £18,334, also to build slaughter-houses at a cost of £9,000.

Plans have been prepared by Mr. Pringle, of the Cowpen Coal Co., for the erection of an institute and hall at the Cowpen Colliery. The total cost will be about £14,000.

Messrs. C. Smith & Son, architects, Reading, have prepared a scheme to cost about £11,000 for additions to Park Hospital, Reading. The plans have to be approved by the Ministry of Health.

Mr. D. Herbert Richards, F.S.I., has commenced practice at offices in Canning Chambers, 2, South John Street, Liverpool. Telephone number 4283 Royal, and also at 76, Victoria Road, Widnes.

The Durham County Council have given notice of their intention to provide a new Public Elementary School for about 300 children at or near the new housing site at Delves Lane, in the parish of Knitsley.

The Notts County Council at their last meeting rejected a recommendation from the Salaries and Establishment Committee to increase the salary of Mr. Leonard Maggs, the county architect, from £850 to £950 per annum.

The Manchester and District Joint Town Planning Advisory Committee invite applications, not later than May 14, for the position of chief surveyor, at a salary of £1,000 a year. The appointment will be for a period not exceeding three years.

The centres for the next R.I.B.A. Intermediate Examination will be London, Birmingham and Leeds. The examination will be held from June 1 to 5, 1923, inclusive. At the London Centre the Oral Examination will be held on June 7, at the Leeds Centre on June 6.

The Great Western directors recently decided to reconstruct Newton Abbot Station, which was designed by Brunel, at a cost of about £250,000. The company's stations at Oswestry and Ebbw Vale are to be improved at a cost of £61,000 and £11,000 respectively.

Mr. Thomas May, M.A., F.S.A., Crieff, has acceded to the request made by Colchester Town Council to prepare a catalogue of the Romano-British exhibits at Colchester Museum without remuneration. It is anticipated that the work will occupy Mr. May from six to ten weeks.

Sir J. Baird, First Commissioner of Works (Ayr Burghs, U.), stated in the House of Commons recently that Westminster Hall would be clear of scaffolding in about one month, and a further three or four weeks would be required for the repair and part renewal of the large paving slabs. The Hall, therefore, should be free for opening by the end of June. He hoped that the electric lighting of the Hall would be so placed as to enable visitors to appreciate the beauty of the unique oak roof.

Viscount Lascelles has accepted the presidency of the Scapa Society, the object of which is the preservation of the amenities of town and country, and especially their protection from too numerous plates and hoardings. It is proposed to introduce into Parliament at an early date a new Advertisements Regulation Bill. The Society hope that this Bill may be introduced with the full agreement of the bill-posting organisations, and Lord Newton, as a member of the committee of the Scapa Society, has consented to take charge of the measure.

A meeting of the Incorporation of Architects in Scotland was held at 15, Rutland Square, Edinburgh, last week. Mr. T. P. Marwick, F.R.I.B.A., president, in the chair. There were presented to the Incorporation portraits of the last three presidents —Sir John J. Burnet, A.R.A. (Glasgow); Dr. W. Kelly, A.R.S.A. (Aberdeen); and Mr. A. N. Paterson, A.R.S.A. (Glasgow). There was also presented a portrait of Mr. J. B. Dunn (Edinburgh), and four original drawings by Mr. R. W. Billings, architect, and two by Mr. H. Morley (London). Five new associates were elected, and applications were received from six associates and two students.

The Rev. A. Raine has communicated to the York Archæological Society a discovery which he had recently made among the papers of the Dean and Chapter of York. He believes that a contract with an organ builder which he has found contains the name of the earliest known organ builder, and is also the oldest existing contract of the sort. It ran as follows:— "24 January, 1338. Master Adam, of Darlington, undertakes to make a new organ. He is to start on Thursday next; he is to receive from the Chapter for his work 11 marks; lead materials and other needful things are to be supplied by the Chapter; he shall associate with him as many other workmen as are necessary at his own expense; he shall enter upon no other undertaking until this one has been completed; he shall do the work as quickly as he possibly can." Mr. Raine estimated eleven marks as equivalent to £300 of our money.

Trade Notes.

For the twenty-third successive time, Mr. W. J. Furse, J.P. (of W. J. Furse & Co., Ltd., electrical engineers and contractors, Nottingham), has been unanimously elected chairman of the Basford Board of Guardians.

The Northampton Glue Co., Ltd., announce that they have now opened an office at the Central House, Wembley Hill, Middlesex, for the sale of their "Simplex" Concentrated Size and "N" Hot-Skin Glue. All enquiries to their address will receive immediate attention.

Boyle's latest patent "air-pump" ventilators have been applied to the engineering shops of the South Eastern & Chatham Railway, Ashford; to Messrs. Coutts & Co.'s Bank, Strand, W.C.; to the New Dyeworks, Ashbourne Road, Leek; and to Canford School, Wimborne. They were all supplied by Messrs. Robert Boyle & Son, ventilating engineers, Holborn Viaduct, London.

The Phœnix Engineering Co., Ltd., Chard, Somerset, will have two representatives, Messrs. T. J. Jennings and P. E. Pownall, at the Fourth International Road Congress, which is to be held in Seville, Spain, from May 7 to May 12. The last similar Congress took place in London ten years ago. It is expected that the Congress will be attended by a large number of experts from this country. The Phœnix Engineering Co. will show a number of their machines for roadmaking and road preservation.

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Architecture at the R.A., 1923

The first general impression of this year's collection of architectural work is that it is unusually good, an impression which is somewhat modified by the difficulty of selecting work of outstanding merit. Among the best works of the year is No. 1168, Mr. H. Austen Hall's design for new buildings in Piccadilly, W., which we are very sorry is unlikely to be realised in execution. Nothing we have seen for a long time is a better example of the masterly treatment of a great cube of building. The two lower stories and mezzanine, which are quiet and well proportioned in their detail, serve as an admirable base to the plainer upper stories in which good effect is obtained from the slightly recessed centre portion, the projecting wings to either side of which terminate two stories below the central mass. Mr. Hall has learnt much from American work, but has in this design shown a building which has a quality of "humanism" about it which is often absent from the great modern American buildings which, with all their fineness, are sometimes almost brutal in their expression of aloofness.

Messrs. Mewès & Davis' Threadneedle Street elevation of the London, Westminster and Parr's Bank has excellence of another order—that of a perfection of scholarly refinement. It is an academical Renaissance composition very delicately and beautifully detailed and shown in a magnificently tinted elevation. Here we have a building which does not depend on the manipulation of masses, but the perfect detailing and proportions of windows and doorways in one plane, a treatment carried out with what may be held to be Hellenic delicacy and refinement. The only adverse criticism possible is that the design of the iron grilles indicated in the fanlights over the doorways is commonplace, and does not reach the high standard attained in the rest of the design.

Mr. Herbert Baker maintains the great reputation he has won for himself. His South African memorial, Delville Wood, No. 1166, with its octagonal pavilions and domed archway, hardly shows him at his best. On the other hand, the Tyne Cot Military Cemetery at Passchendaele, No. 1175, is a perfect piece of simple and appropriate design, exquisite in its proportions and effect. Nos. 1234 and 1249 show portions of the Secretariat buildings, which are rather unintelligible unless we can realise their place in the whole conception, but in No. 1292, which shows the Porch to the Prince's Chamber, Legislative Buildings, Delhi, we have a very fine and sympathetic rendering of Indian detail, shown by one of Mr. Hepworth's finest drawings. In the remaining drawing, No. 1282, the sketch design for the New Bank of England, which we have already commented on, is shown. We would again emphasise our hopes that Mr. Baker will not allow himself to be too much influenced by Sir John Soane's existing buildings.

Sir Edwin Lutyens' works are No. 1180, which shows the new bank premises for the London Joint City and Midland Bank in Piccadilly, next St. James's Church, a simple and nicely proportioned square building which in its quiet and dignified character accords admirably with the adjoining church, and No. 1245, the new offices for the Anglo-Persian Oil Company, a picturesque conception of a huge business building in which the upper columned stories are decidedly overweighted by the height of the simpler plinth treatment of the lower stories. If the whole of the lower story were omitted the building would have been brought into pleasanter proportion, and we feel that the pitch roof over without parapet or balustrading is hardly worthy of a building of its size and importance. The designer has, as he frequently does, invented difficulties for himself, from the consequences of which he escapes with the greatest ingenuity.

The foregoing works are those which stand out from others by their size and merit. The President of the Academy and Maurice Webb are not represented by designs of great extent, but send the Memorial Reading Room, Malvern College, No. 1159; the Textile Trades' War Memorial—the Russell School, Ballards, Addington, Surrey, No. 1242; and the Prospect of Wesley Hostel, No. 1255, to be erected in Jesus Lane, Cambridge. These are all works which illustrate Sir Aston Webb's well-known methods of rendering of the freer type of the Renaissance and his ability in the grouping and arrangement of semi-scholastic and institutional buildings. We all regret the gaps made by the deaths of Sir Ernest George and Ernest Newton, fortunately, is succeeded by the latter, Mr. W. G. Newton, who has inherited both his father's ability and no small measure of his skill.

Taking the exhibition generally in the order of the catalogue, No. 1158 represents the Gazetted Officers' Bungalow at Delhi—a good piece of quiet design by Mr. Robert T. Russell, whose works we noticed last year. No. 1160, the First Church of Christ Scientist, Belfast, a pleasant group of buildings of a somewhat Baroque character by Mr. Clough Ellis. No. 1161, a cottage in East Sussex, by Mr. A. B. Llewellyn Roberts, who in this, a half-timbered house at Le Touquet (No. 1163), and No. 1247, a new chateau at Elvadinghe, Belgium, shows marked ability in the composition of quiet and picturesque form. The Detail of the Entrance of the Boys' Club at Hoxton (No. 1164) by Messrs. Adshead and Ramsey, is pleasing, but we should have preferred a view of the whole building shown in a small elevation underneath. Mr. Cyril Farey's Spencer Lodge, Greenaway Gardens (No. 1165), is a sound Georgian design, and No. 1167, by Mr. Francis Wood, gives a good rendering of an Open Air Bath at Blackpool, a type of structure which affords much opportunity for architectural effect. The new business premises in Oxford Street, by Mr. G. Thrale Jell (No. 1171), are made frankly unpleasant by the unreasonable introduction of a steel treatment framed within a masonry front. The Ramsgate Front Improvement Scheme, by Messrs. Lanchester, Lucas & Lodge (No. 1172), is a fine view of three well designed blocks of houses backed by a number of roads leading back from the sea front.

No. 1173 shows the new Regent Street front block of Messrs. Liberty's, as designed by Messrs. E. T. and E. S. Hall. We regret the curvature of the upper portions of the building, for which there seems no adequate reason, nor is it quite pleasing to see the angles treated with a convex curve on the ground floor followed by a concave one above. The obelisks on the line of the shop front are disturbing and unrestful.

In the façade of the Shepherd's Bush Pavilion (No. 1176) Mr. Frank T. Verity has produced an effect of dignity by very simple means. The proposed Cathedral, Perth, West Australia (No. 1178), by Mr. John Hawes, promised to be interesting, but it is shown in too small a drawing. The Imperial Forest Research Institute, Dehra Dun, India, by Mr. G. Geoffrey Blomfield, is good and dignified in its design. Townhill Park, Hampshire, for Lord Swaythling (No. 1185), by Mr. L. Rome Guthrie, is a large Georgian house, rather too much broken up in its masses. No. 1189, by Messrs. Gerald Wellesley & Trenwith Wills, is a cleverly-planned house in Argyllshire in which advantage is taken of varying levels to place the bedrooms underneath the reception rooms. Mr. G. Gilbert Scott is not at his best in the Memorial Entrance Archway to Clare College, Cambridge (No. 1191), shown in a poor pen-and-ink drawing. The architecture of the Greek Revival appears to have a fatal fascination for him. His other drawing is a fine interior view of Liverpool Cathedral (No. 1315) and forms his Diploma work, deposited on his election as an Associate. St. Cuthbert's Vicarage, Copnor, by Mr. E. Stanley Hall (No. 1192), is not quite worthy of the interesting church which it adjoins.

Mr. W. Curtis Green, the new Associate-Elect, is represented by No. 1197, which shows four small houses with forecourts well and pleasingly planned, and some cottages at Winchester (No. 1269), and a motor company's premises at Chelsea (No. 1295)—all good examples of clean, clear-cut design.

Mr. Arnold Mitchell has in his design for the Central Station at Buenos Aires (No. 1202) produced an exceedingly fine scheme. The columnar order encloses four stories and rests on an arched substructure. In No. 1203 what promises to be a good and interesting building (No. 38, South Street, Mayfair) by Messrs. Wimperis & Simpson is entirely misrepresented by a colour drawing which has been finished with untidy smudges.

The Church and Institute for the Royal Association for the Deaf and Dumb, Clapham Road, S.W., by Mr. Edward Maufe, is an admirably composed group of buildings detailed with much skill and knowledge.

We like Mr. W. G. Newton's drawing of a Memorial Garden for Marlborough College (No. 1211) in which much effect is obtained by very simple means.

Mr. Hubert Lidbetter's House at Hampstead (No. 1215) is admirable in its quaint and unaffected simplicity.

The refacing of an existing building with stone leaves little to criticise if, as in the case of the Carlton Club (No. 1217), few changes are made. In the case of Buckingham Palace a great change was very cleverly effected without disturbing the original openings, but in the case of the Carlton Club there is not room for similar freedom of design.

Messrs. Adams & Holden are at their best in No. 1218, which shows the Library Block of King's College for Women at Kensington—the best example of scholarly and refined Georgian design in the exhibition, marked by its good proportion and detail.

The Village Church, Mental Hospital, Bangour (No. 1224), is an interesting effort by Mr. Harold O. Tarbolton of a severe Romanesque type. Sir J. J. Burnet's Indian War Memorial, Port Tewfik, Suez Canal, shows the inevitable obelisk flanked by groves of trees, in this case a more natural expression of design than the same form as used in this country in the accepted design for the Guards' Memorial, by Mr. H. Chalton Bradshaw (No. 1259), which we cannot say we like, and even feel the row of figures to be tending in the direction of the grotesque, but this defect will probably be eliminated in the executed design.

No. 1233 shows part of the curving Broadway frontage at Hammersmith, treated very simply and strongly by Mr. Oliver Hill, who has the advantage of being able to introduce comparatively little window area. Mr. Paul Waterhouse's Convent of the Incarnation at Oxford is a good and dignified design and should form a fine group.

No. 1236 shows the proposed Homes for Aged Couples, Hammersmith, by Messrs. Henry T. Hare & Bertram Lisle, and is like the rest of this scheme a good example of pleasant arrangement and combination of groups of buildings. The Australian Pavilion of the British Empire Exhibition at Wembley Park, by Mr. George Oakeshott (No. 1237), is disappointing and commonplace; and Messrs. Unsworth & Triggs are hardly at their best in their house at Wadhurst (No. 1239). Messrs. Mawson & Son's South Shore Improvement Scheme at Blackpool (No. 1241) raises the question whether it is possible for the most enterprising of public bodies to keep pace with a designer's schemes! In the restoration of the third century fort at Cardiff Castle, by Mr. John P. Grant, we have one of the great restoration schemes which few clients now will attempt, but which appeal to the wide sympathy with architecture and archæology which is a heirloom in the Bute family.

We should be better able to appreciate the great Delhi schemes if we could see a large scale model which would show the relation of the various parts instead of such views as those of the Secretariats, by Mr. Herbert Baker (No. 1249). On the other hand, the very fine example of detail shown in the architect's view (No. 1292) is more clearly illustrative of the quality of what promises to be an exceedingly clever adaptation of Eastern design. Mr. George Hornblower's New Obstetric Hospital and Residents' Quarters (No. 1248) is one of the important utilitarian buildings which leave little opportunity for architectural display and in which planning becomes an overmastering consideration.

No. 1250 is a good example of Mr. Goodhart-Rendel's interesting and scholarly work and Messrs. Detmar Blow & Billerey are at their best in the Courtyard at Mimizan (No. 1254). Though we do not care for the Guards' Memorial as shown (No. 1259), Mr. Chalton Bradshaw is at his best in his design for Burningfold Farm (No. 1278), which perhaps indicates the natural direction in which his inclinations would tend. Many of us would be free designers by instinct were it not the prevailing tendency to stereotype our efforts in statelier dress. Messrs. Horace Field & Pearson's design for Public Hall and Baths at Lytham (No. 1262) is careful and pleasing, and we like Professor Richardson's Darwin Building, University College (No. 1261), which promises well.

Sir Robert Lorimer's design for a Naval War Memorial (No. 1263) is disappointing, a result which may be the effect of the inadequate manner in which it is presented.

Messrs. A. W. S. & Kenneth Cross send an elevation of the Finchley Baths (No. 1293), a good piece of Georgian design, which we feel would be pleasanter if the sash bars were kept in plain rectangles.

Messrs. W. G. & H. A. Newton send two interesting drawings of the good work they are doing at Uppingham (Nos. 1288 and 1296).

Mr. John A. Hallam sends an admirable design for the Brotherhood Club at Barry (No. 1304), which is perfectly proportioned and very refined.

Mr. Guy Dawber is represented by two houses (No. 1301 and No. 1303) and by the Westminster Bank, Tunbridge Wells (No. 1294), all being good and characteristic.

One of the most interesting of the remaining works is the Cathedral of St. Francis Xavier, West Australia (No. 1321). As shown in the very simple drawing it would not appear to be a work of much promise, but the small photograph of one of the western towers attached shows how good it really is. It is a work of originality and imagination, and the abrupt diminishing offsets of the tower convey the impression produced by many of the buildings of Old Mexico. No. 1321 is a very interesting proof of the fact that drawings often convey a wholly erroneous conception of the results of building to those who are used to them, as well as to the uninitiated. Mr. Paul Waterhouse's Younger Hall, University of St. Andrews (No. 1334), is both well proportioned and pleasing.

Space will not permit of our saying more of an exhibition which is remarkable because there are fewer works than usual which stand above the general average of merit and interest, and also because that level is distinctly higher than in many past years. There are very few works shown which do not deserve a place in an exhibition of current architecture.

Painting at the R.A.

That the Academy should prove so dull was unexpected. After the brilliance of last year, with its intriguing comparison between the Sims and Sargent portraits of Lady Rocksavage, and the success of Orpen's "Chef" the year before, the commonplaceness of the present show comes with something of a shock.

In seeking explanations, two lines of argument suggest themselves. We may attack the overworked and much-harassed Committee—questing in the waste-heaps of their rejections the elusive masterpiece; or take our disappointment frankly to the artist, and there find solace in his greater woe.

To put it bluntly, the new members, some of them, come hardly up to scratch, and others are frankly disappointing. While, on the other hand, many of the old brigade disclose quite unsuspected powers.

Mr. Frank Dicksee, whose career one confesses—admitting the soft impeachment—not to have followed with special interest, contributes his full quota, including a lady's portrait, "Mrs. Sanford," intimate in expression, searchingly modelled, albeit with a paint-surface far from pleasing, hands with sensitive fingers excellently drawn, the weak part being the clearly photographic ambition implied. Mr. Joseph Farquharson shows his six landscapes as usual. Sir David Murray also six, with "Sunbeams Over Snowdon" prominently placed in the long gallery. Obviously, the artist found interest in realising a certain quality of misty lighting, but here again there is nothing seen, or felt, not known to the camera lens. And this for the man in the street is one of the readiest tests. Among veteran outsiders Mr. R. W. Allan fills, adequately, a conspicuous place in Gallery No. VII., treating his favourite fishing theme with a breadth of outlook quite refreshing.

And while the reactionary element, to name thus but a few, has still got life and vigour, and any amount of power, the main trend of current Academic thought is surely towards advance. And if the sluice gate can not yet be described as open, the dam is leaking visibly.

Of subject pictures there are probably fewer than on any previous occasion. By this is meant the type of picture in which, even to the artist, not to say the public, the interest of the subject takes precedence and controls the whole design.

As a child absorbed in a story book reads on while walking, ignoring the sound principle of safety first, so the old-fashioned artist absorbed in the details of his subject ignores the soundest principles of art—principles that deal with the abstract theories of colour, harmony and discord, of tonal amities and the laws of lineal design.

Nothing is more symptomatic of the changed ideals of modern art than the gradual decline from public favour of the subject matter as the chief attraction, and the substitution of some more technical consideration—in itself an evidence of knowledge.

But the principal interest of the exhibition lies in the work of the main body of Academicians and Associates. Of these none are more prominent than Sir William Orpen and Mr. Charles Sims. While each enjoys the possession of a personality, as penetrating as it is distinctive, there is this essential difference between them: the one has all that could be of technical advantage, of outward and visible sign; the other one knows not quite how much of inward and almost spiritual grace. And each, in some degree, suffers from the defects of his qualities.

Another interesting point of comparison is found in the effect of their work on others. While Sir William Orpen's followers—and they are no small company—singling out for special admiration certain obvious supremacies of eye and hand, give tangible (not to mention catalogue!) proof of their appreciation, the more abstract subtleties of Mr. Sims' art defy analysis, and he remains inimitable.

In selecting these particular painters one must, at the same time, admit that neither, nor for that matter has any other, produced this season any individual canvas which could be acclaimed the "picture of the year."

The nearest approach to a sensation—or so the hanging committee considered—is Sir William Orpen's somewhat doubtful tribute "To the Unknown British Soldier in France," placed by a shrewd judge in the centre of the great gallery.

Some of us, however, are ill-prepared to take a hint, and not all who gaze in silence will agree with the committee. Undeniably clever, brilliant, a veritable *tour de force* of ingenuity, the excess of manual dexterity but brings to light the lack of taste and feeling. Something unpardonably callous, almost impudent, in the manner rather than the fact, repels even those not often moved by sentiment.

But there are portraits in which this manner has amazing value. Two are hung on the end wall of that same Gallery III.—"The Lord Glenavy," vivid almost beyond belief, and not altogether happy in schematic arrangement, but masterly in handling. And, less exact—in some respects not above reproach in draughtmanship—the lady medical, Miss Blake. But by far the best of the Orpen portraits, best in colour, design, and certainly the most subtle in type, is "Roland Knoedler." If Sir William Orpen could keep to work of this order one might forgive him even his satire! (Almost!) For here the Orpen manner is well nigh perfect: perfect in crisp delineation of the *bon viveur*, with expressive eyebrow raised archly, shrewd, appraising. And the scheme

—rose the background, silver the hair and coat, cream white the waistcoat, with well-placed spots of black tie. Of its kind, a masterpiece.

In portraiture, generally, the show is unusually strong—in numbers, that is. The quality is not always high; in fact, in some cases, quite surprisingly poor. In the great gallery, besides the objectionable satire, and opposite to it, a large group by Mr. Sims holds the centre. In spite of its obvious charm, for in style and distinction it is unique, a hint of something self-conscious, a slight awkwardness of pose, detracts a little from its success. None of the Sims groups quite attain to the supreme achievement of his Lady Rocksavage last year. Mr. Sargent, the other *parti* to that same success, is, however, quite in his best, though slightly modified manner, in "Sir Edward H. Busk," whose air of scholarly refinement is real indeed. Also very real, painfully real, one might almost say, is "Sir John Struthers." But Mr. Greiffenhagen in this has been unable to make real the atmospheric envelope, and it lacks sadly the suave distinction of Mr. Sargent's. Across the corner hangs the great Lavery, "The Marchioness Curzon." As a Lavery, of course, it exhibits style of painting, of grouping, style in clothes and manner. The grey scheme, too, is typical Lavery, "but somehow it doesn't just——," and the overheard remark stopped there. There are portraits by Mr. George Henry, accomplished, *chic*, a little low in tone possibly, otherwise most expert. Mr. Frederick Whiting, in the equestrian manner of Furse, paints the Morel family—not with any special success. And so on almost indefinitely. So many are there, and mostly so dull. There are, of course, exceptions, such as the very serious, highly finished, careful tone of Mr. Alex. Beeton, unspontaneous, however, and therefore boring. Highly finished, too, and also extremely painstaking but in a very different manner, with no hint of fatigue, are the portraits by Mr. Gerald Kelly, a recent though not quite new Associate.

Of the new Academicians Mr. Glyn Philpot attracts most attention with his finely-composed, sculpturesque group, "Little Dancer," hung in the centre of the First Gallery. From this picture one derives the uncomfortable sensation that, while the artist remains personal, and true to the type which he has handled from the beginning of his career—square cut, slightly rough-hewn, with the eye curiously set in the head—he now talks with the accents of Whistler, and more than a hint of Orchardson in colour. It remains, however, strangely personal, and haunts the memory when other things are fading.

In "Penelope" he is less interesting. A lack of unity is noticeable throughout the composition. The colour, however, is again fine and, here, quite clearly personal.

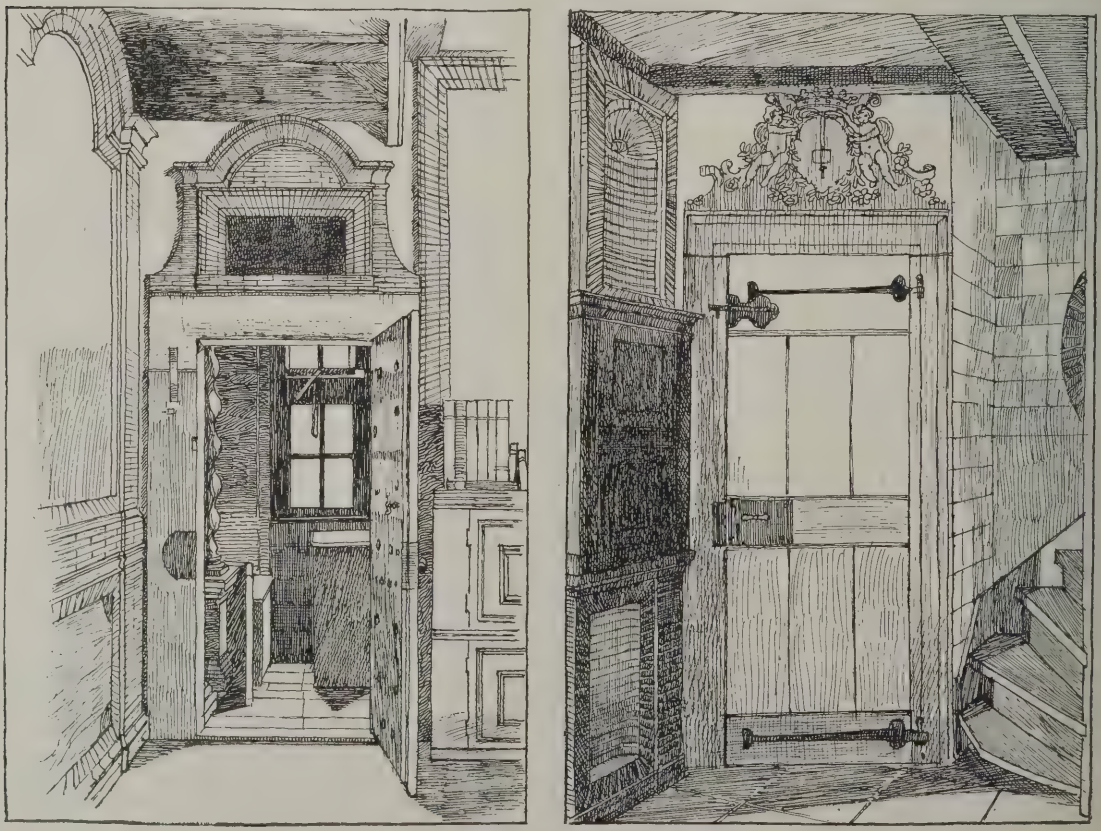
Among figure subjects Mr. Ricketts is tragic and romantic in "The Trojan Women" and in his "Chimaeras." Mr. Charles Shannon's "Wounded Amazon" is similar in feeling, though spoiled by the absence of any satisfying result of its rhythm. Mr. David Poynter has an interesting though not originally felt "Entombment," and Mrs. Swynnerton, in her large and mystical "Montagna Mia," is merely reminiscent of the Alp painter, Segantini.

As not infrequently happens in Academy exhibitions, the landscapes provide the most completely satisfactory work on view—not improbably this might be said of all picture shows. The greater ease of control and less *exigeante* demands doubtless conduce to this. Apart from Mr. Wyllie's vast "Port of London," with its amazing truth of detail and topographic interests which make its popular appeal immediate, the most poetic and imaginative, and therefore in a sense the most truthful, landscapes are Mr. Clausen's "Sunrise in May" and "Tilty Church," the latter perhaps a little marred by conventional cloud forms. His "Gossip on the Road" is more of a figure subject than either of the others, and has much of the dignity of Millet.

Of Mr. D. Y. Cameron's three contributions none is quite in his most supreme manner. In the case of Mr. Arnesby Brown several will find immediate acceptance among his best—notably the spacious "Watch Tower," in which a slight sign of Cameron influence is felt.

In the last room, reserved for the moderns, there is an absence of thrills. Mr. John Nicholls's "December" snow scene and Miss Cecile Walton's "Halcyone," with its romance and air of distinction, are quite the most interesting.

H. A. C.



OLD HOLLAND. By G. G. Wornum.

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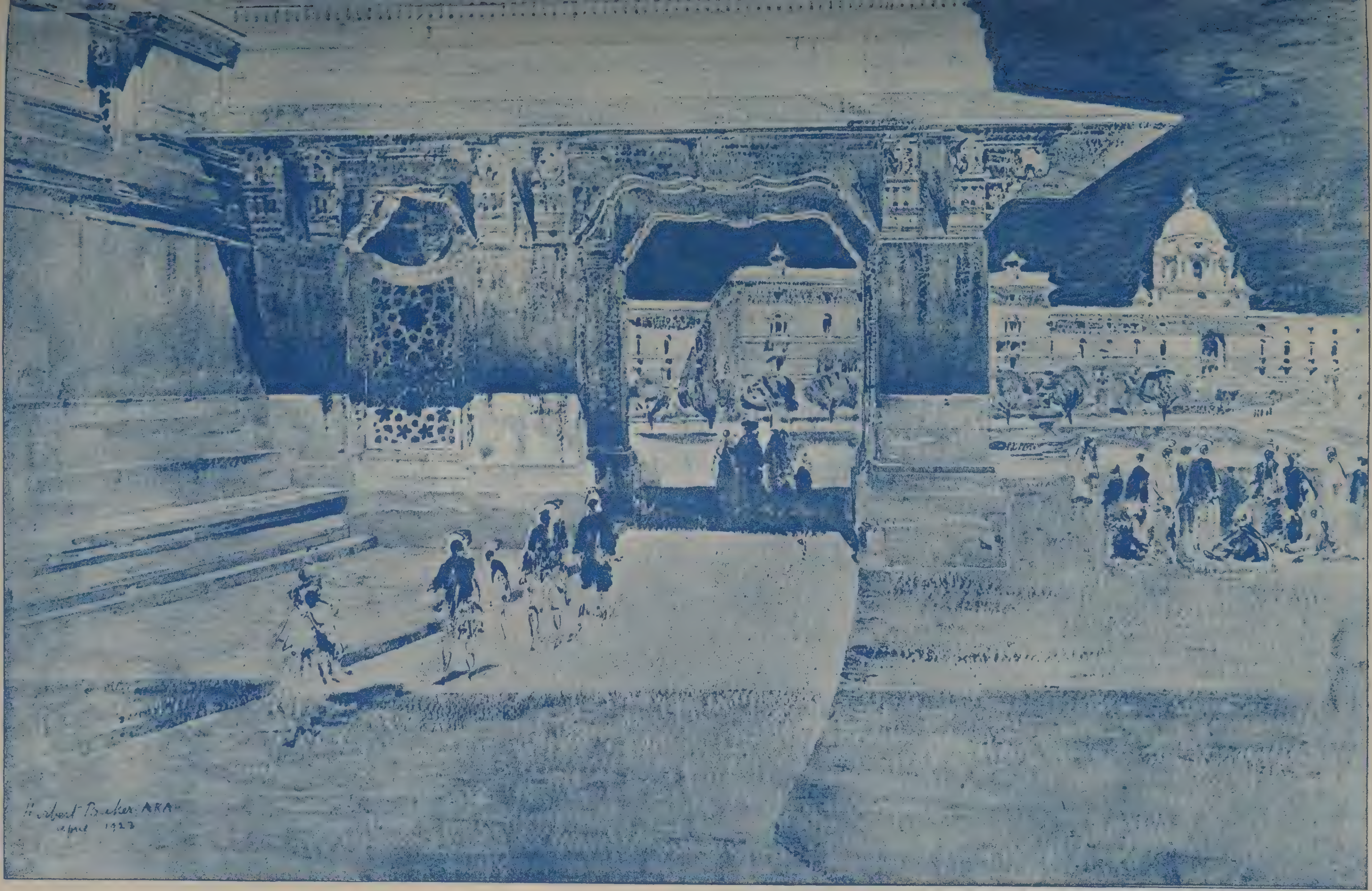

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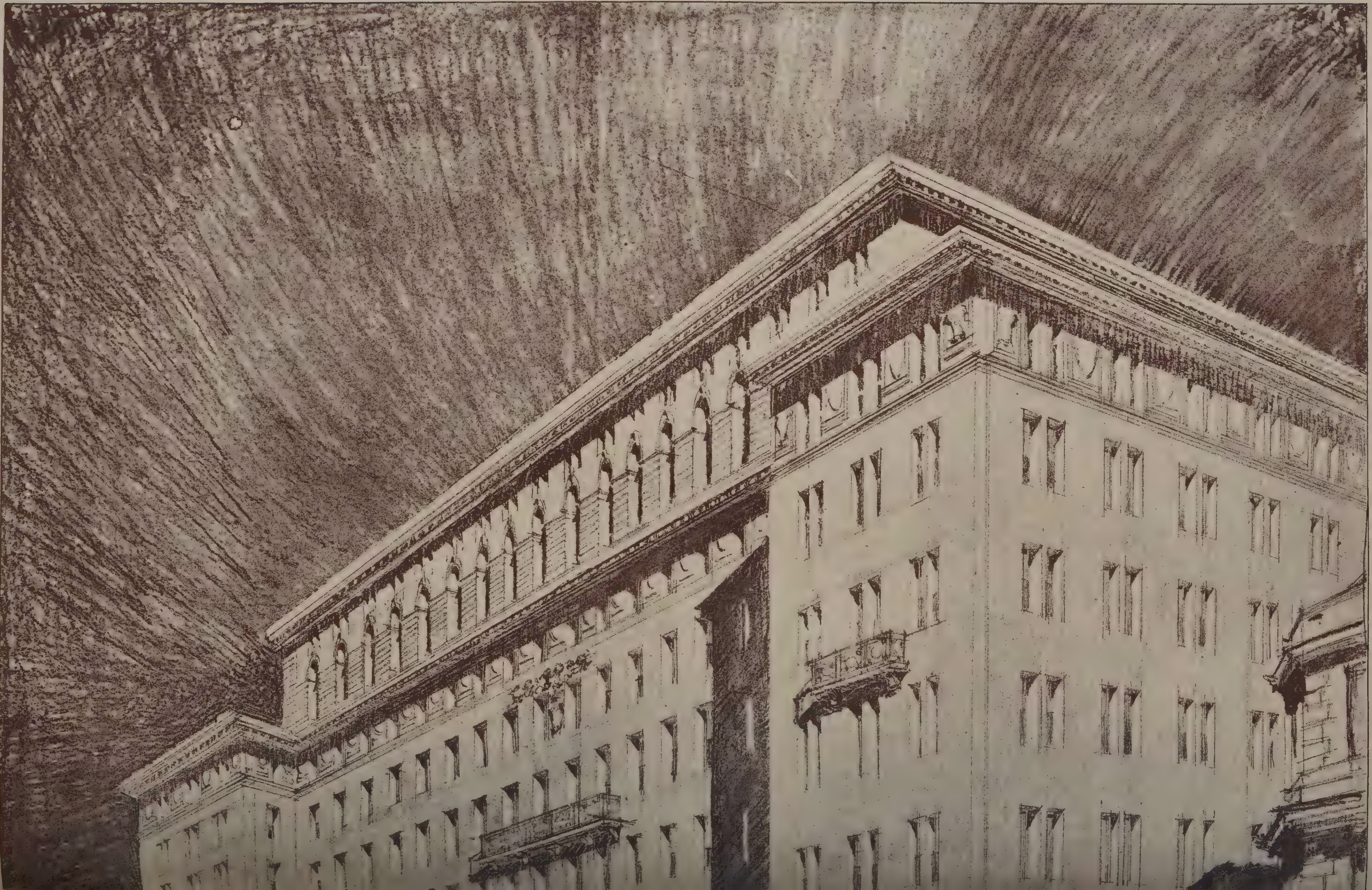

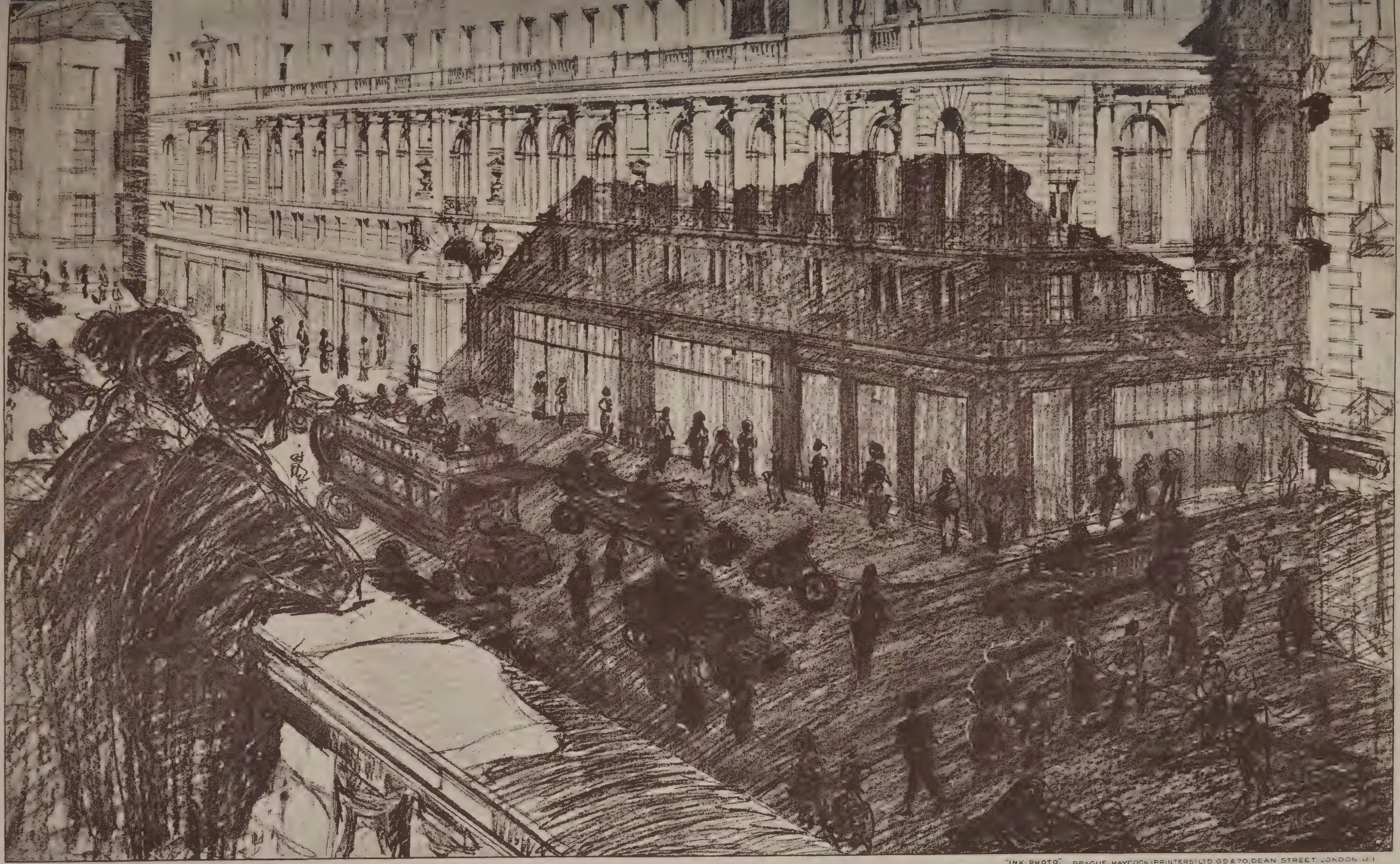

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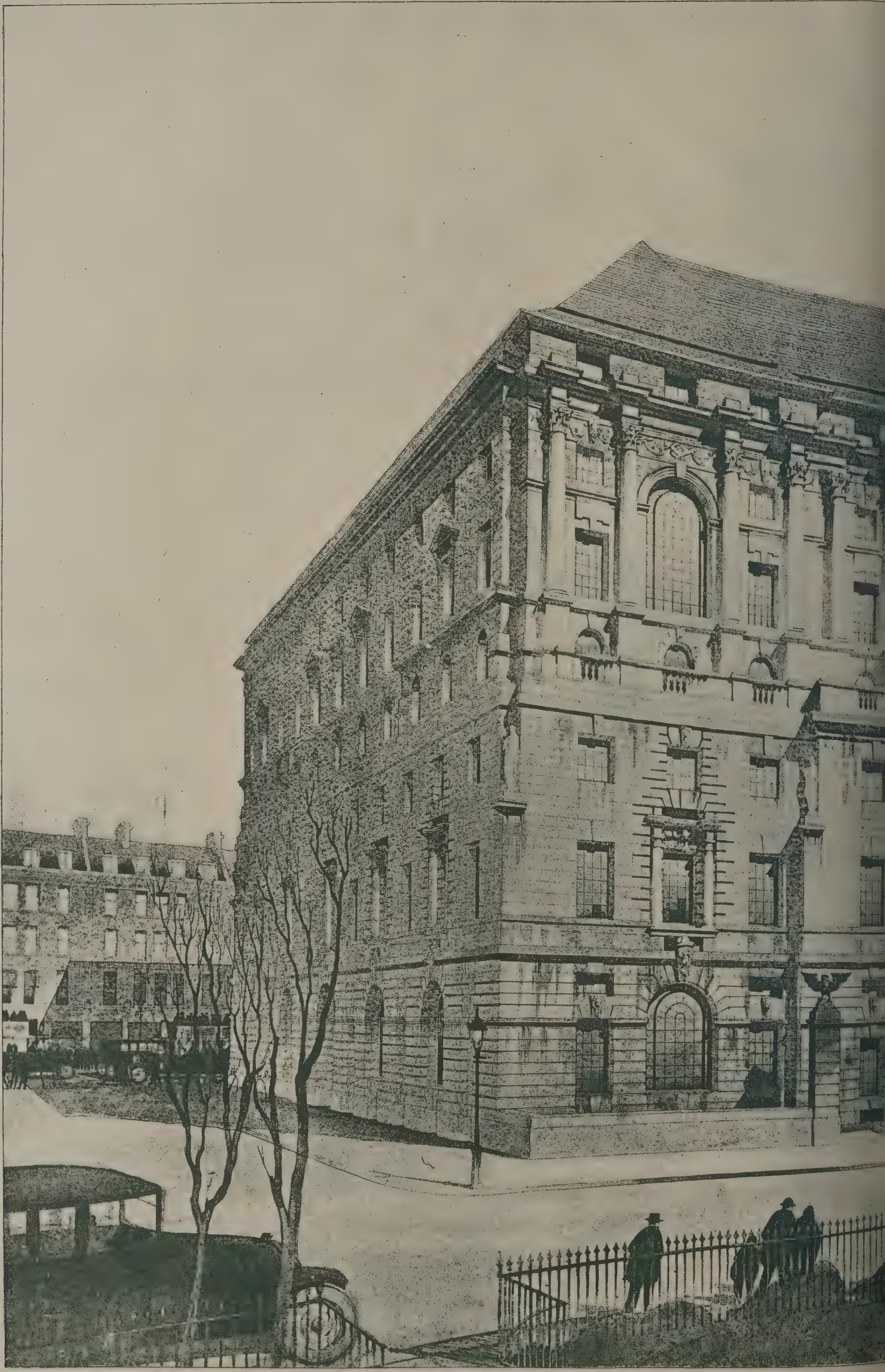

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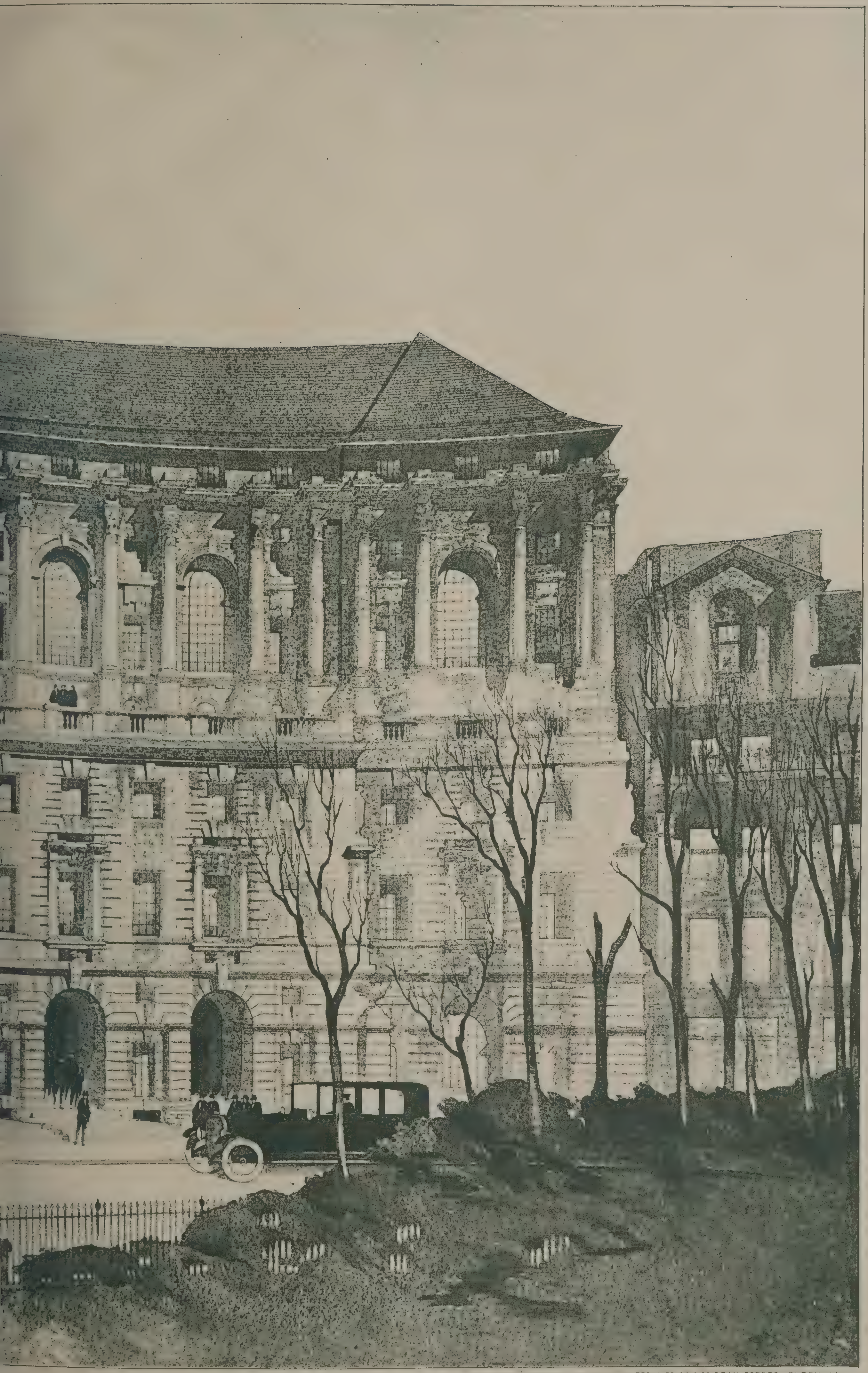

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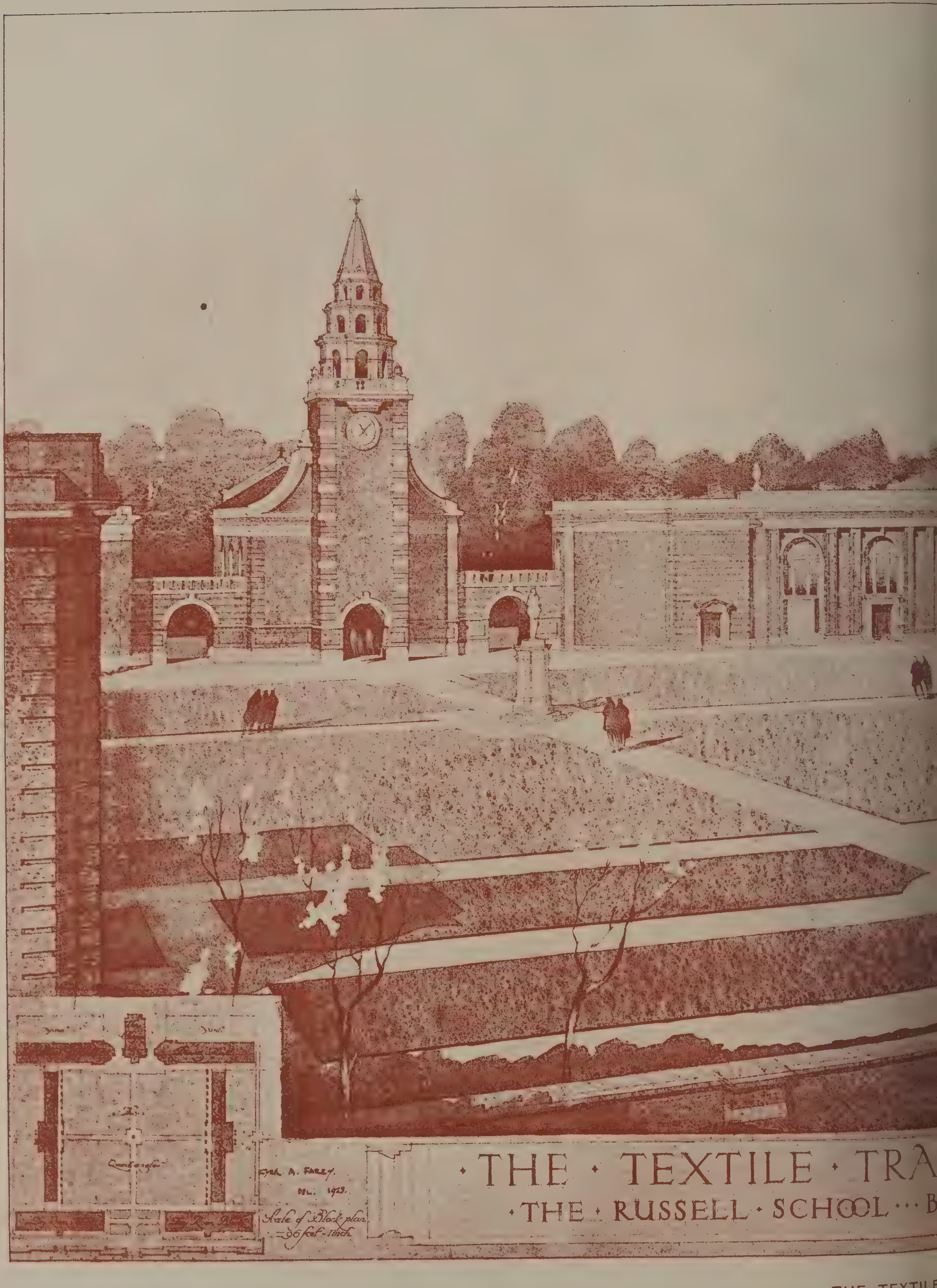

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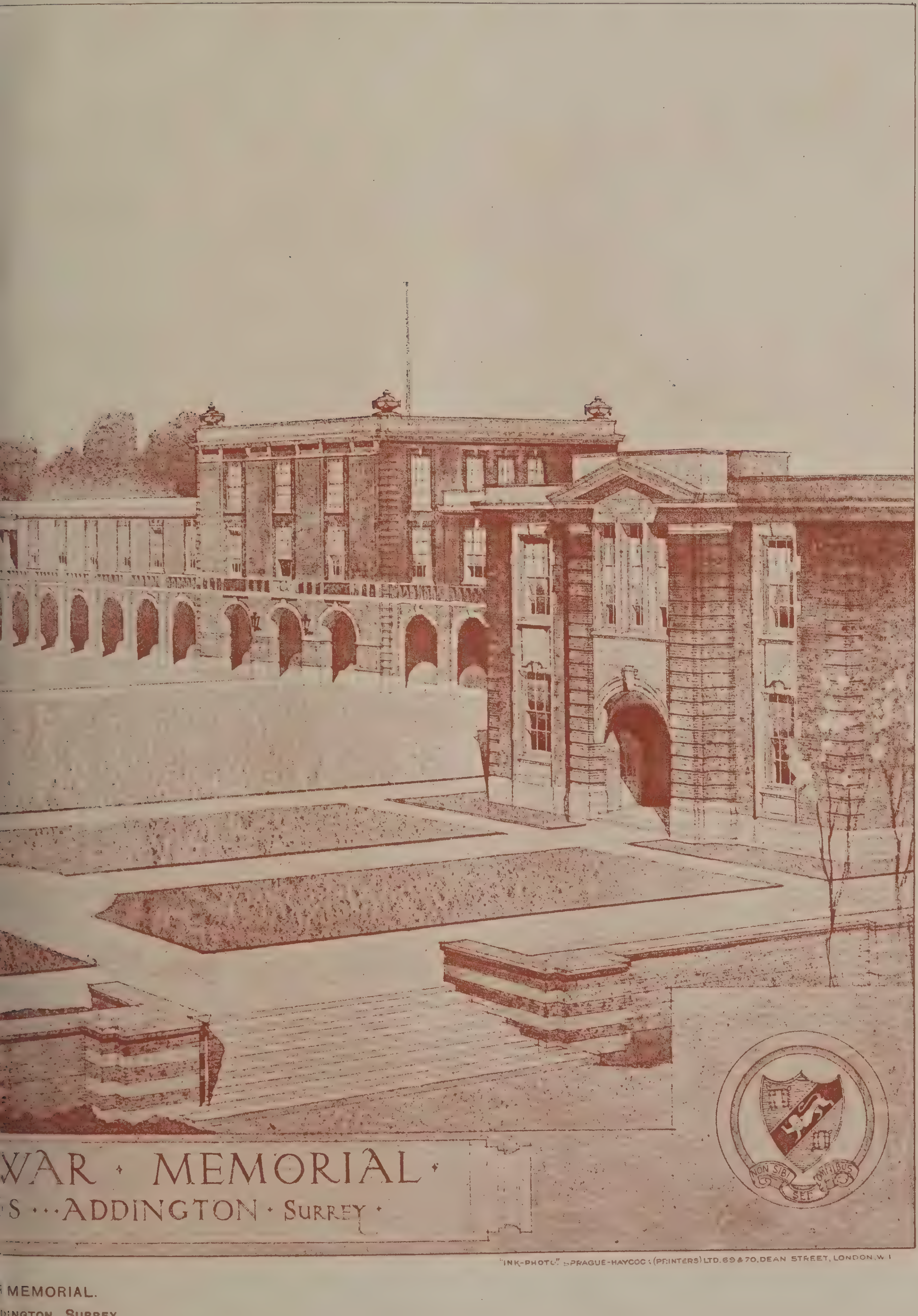

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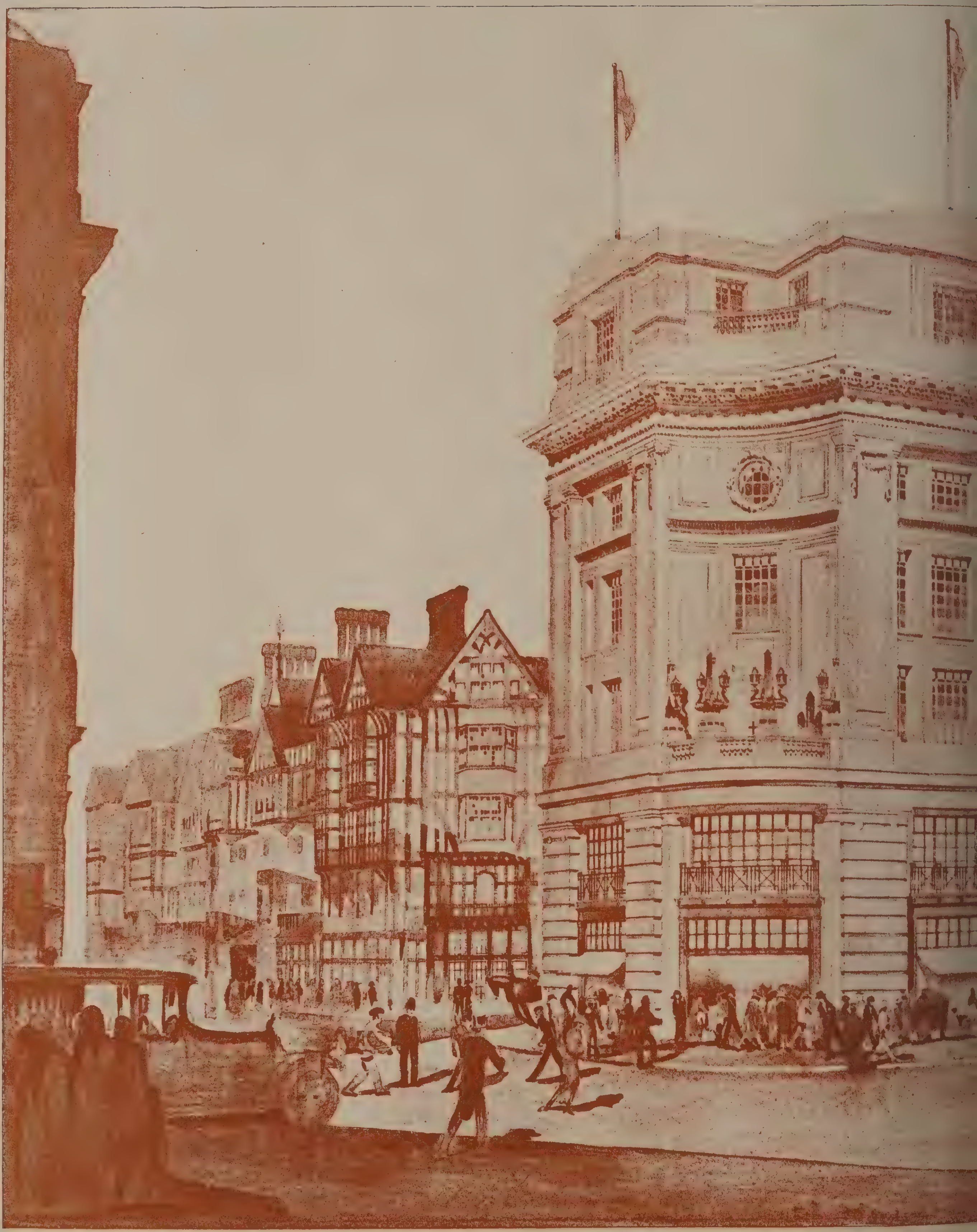

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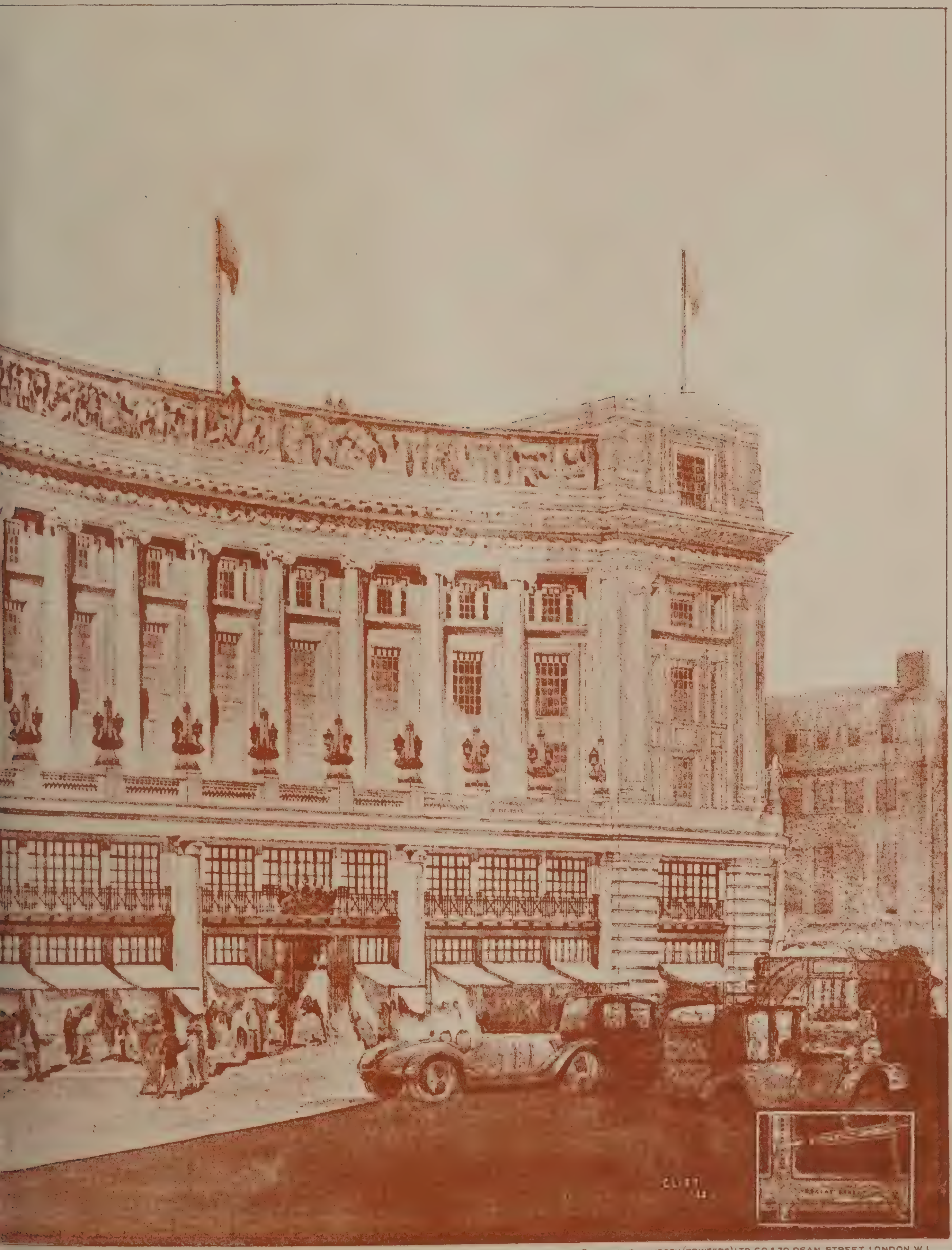

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NEW BUILDINGS, PICCADILLY, W. H. AUSTEN HALL, Architect.

NEW OFFICES FOR THE ANGLO-PERSIAN OIL CO., BRITANNIC HOUSE, FINSBURY CIRCUS, E.C.
SIR EDWIN L. LUTYENS, R.A., Architect.

THE TEXTILE TRADES WAR MEMORIAL, THE RUSSELL SCHOOL, BALLARDS, ADDINGTON, SURREY.
SIR ASTON WEBB, P.R.A., and MAURICE WEBB, Architects.

NEW BUSINESS PREMISES, REGENT STREET, W. EDWIN T. and E. S. HALL, Architects.

Notes and Comments.

Lord Leverhulme.

Lord Leverhulme made an admirable and pithy speech t the recent annual Society of Architects' dinner, in the course of which he very completely disposed of State-ided housing in a few convincing sentences. He believed hat in architectural matters America is making greater trides than we are here, a fact we admit with some reservations. America has, in spite of its increases in taxation, been enriched rather than impoverished by the results of he Great War, and whether her command of the world's gold will in the end prove wholly advantageous to her, it does bring with it certain immediate gains. America is till also, as compared with most of Europe, a new country, hough it may, as Mr. Mackay Edgar states, be depleting ts resources at an alarming rate. Still, for years to come America must be the country with the greatest need of and field for new building, and the want stimulates and mproves the supply. Possibly, as Lord Leverhulme tates, there may be room for an architectural journal which appeals to the public interested in building, but is not the want, such as it is, already met by several journals we could name, while more purely professional publications would be glad to widen their scope should support be xtended to them ?

The Appeal with Many Signatures.

We have been more surprised than impressed by the number of signatures attached to the election appeal which we published last week. We would first ask what "unfortunate impasse" has been reached upon the question of Regisration ? We do not suppose that the framers of the R.I.B.A. Draft expected that their Bill would be endorsed *n bloc*, but they might reasonably have expected criticism n detail from those who said they could not support it. f they had done so the way would have been open to find "the reasonable basis on which an agreed measure of Registration can be put forward without dividing the nstitute." We believe, however, that the majority at the January meeting wanted nothing of the kind, and that what they were seeking was simply to discredit those who, having a clear mandate in 1922 against unification, wished during their term of office to carry out that mandate. If the electors this year have wholly changed heir views and now wish to mix wine and water in order o fill a greater number of bottles with the diluted fluid, hey will, of course, do so, but in so doing they will not bring Registration any nearer. The two questions are utterly different and separate from one another, and if his is not clearly recognised it is only another instance of he want of logic displayed so often in public affairs. We had a Coalition Government during the war, but most of us are glad to see the days of Coalition ended. Do we wish to try a Coalition of rather discordant elements in rchitectural matters, or are we better without it ?

The American Building Boom.

The American building boom is said to be on the point of collapse caused by the high price of materials and the nordinate exactions of labour, which is now obtaining from 00 per cent. to 400 per cent. more in wages than it was in 913, while the cost of building materials is up 96 per cent. The dislocation of wages and of prices is affecting industry generally. High costs are devouring profits, while further labour strikes are threatened. This has produced a tendency to hold up building which would otherwise have been put in hand. We may say that what has happened in America is an exaggeration of the same evil from which we have suffered here and helps to prove the advantages of moderation.

The Manchester Building Guild, Ltd.

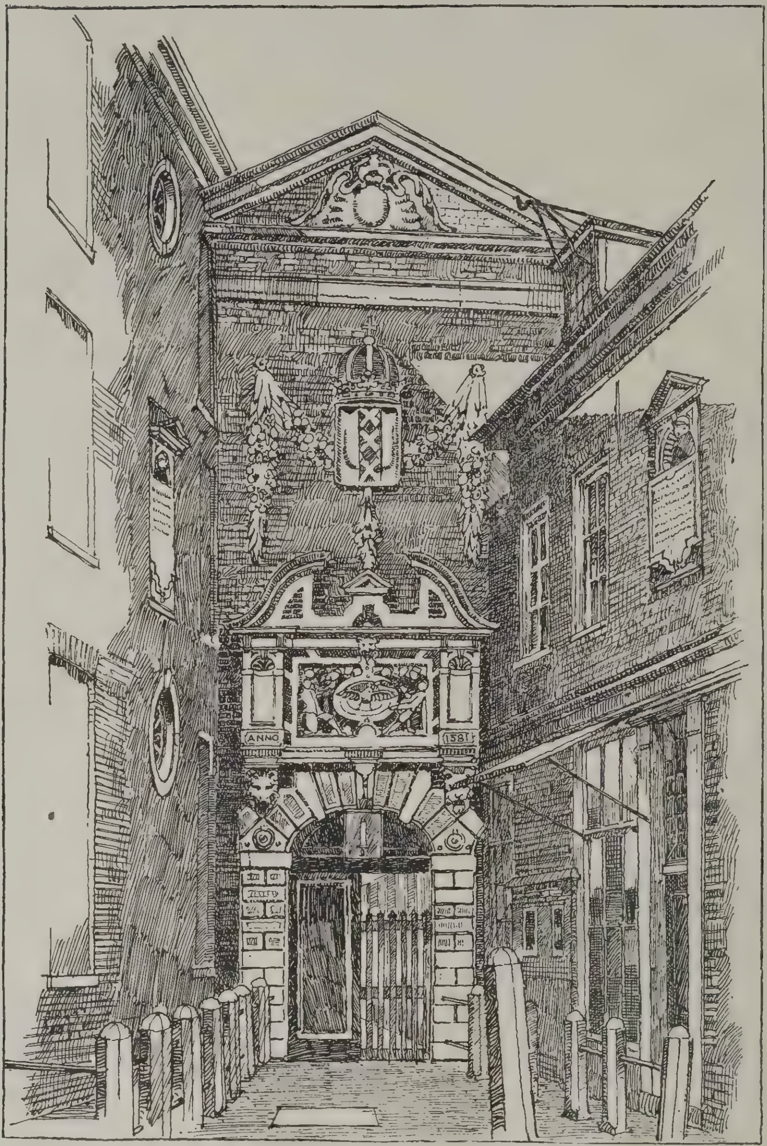
The necessary legal measures for the registration of the proposed Manchester Building Guild, Ltd., as a public company have been taken. This Guild is apart from the National Building Guild. Its promoters are members of the original Manchester Building Guild Committee, and it is proposed that the company shall carry on the business of builders. The first board of directors will consist of representatives of the National Painters' Society, the Amalgamated Woodworkers' Society, the "Altogether" Labourers' Union, the Society of Architects' and Surveyors' Assistants, the Woodworking Machinists' Society, the Operative Plasterers' Union, the Operative Plumbers' Society, the Amalgamated Building Trade Workers' Union, the Electrical Trade Union, and the Slaters' and Tilers' Union.

The promoters state that in the formation and working of the Guild it is intended to adopt the following main principles : That the capital be £5,000, to be subscribed in ordinary shares of £1 each (5s. to be paid on application and 15s. on allotment), and preference to be given to members of trade unions affiliated with the local branch of the Federation of Building Trade Operatives and other trade unions connected with the building industry ; that profits shall not be employed in the payment of any dividend or bonus or other sums among shareholders by way of profit other than a maximum of 4 per cent. on money paid in as share capital ; 50 per cent. of profits available from time to time after payment of the 4 per cent. shall be applied first in creating a reserve fund and adding to it, and afterwards in the development of the Guild structure, the remaining 50 per cent. to form a fund for the provision of continuous pay

We hope that the new venture will succeed, as it should do if it has the hearty backing of the unions mentioned. The experiment should in the general interests of industry be thoroughly tested, and whether successful or otherwise it should help in producing industrial rest which can only result from a full realisation of the common difficulties of employers and workers.

Smoke Prevention.

Mr. W. H. Casmey, a Bradford engineer, who has given many years to the study of smoke abatement, has given demonstrations to prove that the smoke nuisance is mainly caused by unskilful and ignorant stoking of boiler fires. A demonstration was given at Messrs. Paton and Baldwin's works and a gathering of manufacturers and others were shown by Mr. Casmey that black smoke or no smoke could be produced at will, as for a few minutes the chimney would vomit up dense clouds of black smoke and then none at all. For some years the Manchester College of Technology has been giving courses of instruction to stokers and boiler men. The theory underlying such instruction being that smoke is caused by imperfect combustion. As this also produces



OLD HOLLAND. By G. G. Wornum.

waste which is enormously expensive in the aggregate, a clear way to smoke abolition is pointed out, since by penalising individuals for an ignorant use of fuel, just as motorists are penalised for reckless driving, we could eliminate most of the smoke nuisance without expense or much trouble.

Mr. Waterhouse's Position.

We give a letter from Mr. Waterhouse in which he explains his views with relation to the questions now at issue in connection with the R.I.B.A. election. We may say at once that no one doubts that in all things Mr. Waterhouse would never take any action which he did not think was strictly fair and justified for any consideration whatsoever.

That being said, we may add that we have felt that Mr. Waterhouse has not taken what we should have called an attitude of strict impartiality during his term of office or at any rate its later phases. We may further say that it seems to us unnecessary to talk about the deplorable introduction of politics into professional matter, *because those who were responsible for bringing up the issue of Unification themselves introduced a political issue which determined the course of subsequent events.* The supporters of Unification cannot state that the position of present members of the R.I.B.A. will not be affected by Unification which, frankly, means *the swamping of that body by the admission of a number of new members who either cannot or are not willing to pass the examination for the Associateship.*

Whether this is or is not desirable may be questionable, but it cannot be denied that it was brought up by those who have opposed and are opposing the present council and who are taking the most unusual course of forcing a contest for the presidency. But while we differ completely from Mr. Waterhouse, we admit without reservation our absolute faith in his intentions and good faith.

Building Materials Exhibit at Wembley.

At the first meeting of the Building Materials Committee of the British Empire Exhibition, Sir Lawrence Weaver, as Director of United Kingdom Exhibits, took the chair and reported acceptances from the following gentlemen:—Mr. Harold Anderson, Mr. J. G. Ashmore, Mr. C. S. Bell, Mr. V. W. Bone, Mr. G. W. Butchard, Mr. F. G. Dawson, Mr. H. J. C. Johnston, Mr. D. Palmer-Jones, Mr. W. Pangbourne. Mr. Anderson was elected chairman and Mr. Dawson deputy-chairman. It was decided that Mr. Reginald Brown, M.B.E., consulting municipal engineer, should be invited to join the Committee, and also Mr. D. G. Somerville, M.P., of Messrs. D. G. Somerville & Co., Ltd. In addition, Stuart's Granolithic Co. have been asked to nominate a representative.

The nature of the exhibit was discussed, and Sir Lawrence Weaver explained that it was desirable to get a logical group of exhibits, having regard to their use, so that they would be of the utmost interest to the public, and that the type of exhibit shown at the Building Exhibition would come into this Section. He also stated that an exhibit of working machinery, if neither noisy nor otherwise offensive to visitors, would be a welcome addition to the Section.

It was agreed that the exhibits to be organised by the Committee would be most appropriately shown in the Industrial Hall. Sir Lawrence impressed upon the Committee the desirability of having an attractive decorative scheme for the exhibits of this Section. A firm making several articles, he said, could, if these were closely related, show them in one exhibit.

Correspondence.

The R.I.B.A. Elections and Registration.

To the Editor of THE ARCHITECT.

Sir,—The general body of the Institute, by persuasion or by nviction, elected a Council a year ago of which the majority s admittedly and avowedly selected for a special line of action. that Council they attached me as President, and I need rdly say that whatever my failures as a Chairman may have en, I have striven to conduct the deliberations and resolutions the Council with loyalty to the Council itself and to the electors whom both the Council and I were responsible.

Like others, I am deeply interested in the current elections ; e others, I am fully sensible of the responsibility which lies in hands of *every* voter ; and as my duty *qua* Chairman of uncil dies with the expiration of the present Session, I do not l that there is any disloyalty in my venturing to express a w and a hope as to the personnel of next Session's administators.

I have, I am glad to say, so many personal friends among ose with whom I do not always see eye to eye on the present uncil that they at least will not misunderstand me if, in alty to the Institute as a whole, I speak quite frankly.

It is better to do so than to be misunderstood, and I therefore e this opportunity of declaring quite definitely that I propose vote for the list of names set forward by the 1922 Emergency mmittee. I do so partly because I am satisfied that the policy the present Council, however well-intentioned, was a mistake well as a failure, and perhaps chiefly on the ground that I ieve it to be wise that our Council should be composed of n whose title to be placed there as representatives does not pend too exclusively on attachment to a party issue.

It is unusual for a President of the Institute to write such a ter as this ; but the circumstances are unusual. I write it iberately, conscientiously, and with a sense that without king some such expression of my views I may be unfaithful certain electors who would look to me for guidance.

Yours faithfully,
PAUL WATERHOUSE.
President R.I.B.A.

Staple Inn Buildings, High Holborn, W.C.
May 5, 1923.

To the Editor of THE ARCHITECT.

Sir,—The election of officers and members of Council of the I.B.A. seems fated to turn upon one question of policy—viz., gistration—which certainly must vitally affect the profession, t really is not the only thing upon which the well-being en of the profession turns. There was progress before registran was heard of, and I venture to think that if nothing more re heard of it the advancement of the art and the profession all directions in which the Institute can foster true advance uld not come to a standstill.

In the present election we have the curious spectacle of two posing groups which appear to differ not so much in their ews of the policy in question as on the mode of approach to actual end—registration—which the one thinks can be ched *per saltum*, while the other thinks that, if it is to be ained, there is an intermediate stage first to be conquered ether in fact it may lead to registration or not.

Personally, I do not think that registration is either desirable necessary. I fail to see that it will do anything for the prosion, and it will afford no sort of safeguard to those who need services of architects. The entrance to the profession will tainly not be better guarded against incompetence by any stem of registration added though it may be to the sifting complished by the professional societies ; there is, at any rate, nger of a lowering of standard as a result. Apart from purely ofessional interests, it is, of course, quite clear that registration n do nothing for the advancement of the art of architecture.

It is sincerely to be hoped that the object which has in the past en kept in view in the choice of officers and members of Coun—viz., to get men really representative of the profession in widest outlook and concerned for the advance of architecture well as for professional interests—will not be allowed to be scured in the pursuit of a policy in relation to one object of gistration or non-registration or the means of securing or oiding the adoption of registration.—Yours, etc.,

H. P. BURKE DOWNING, F.S.A.

The Athenæum,
Pall Mall, S.W.
May 7, 1923.

To the Editor of THE ARCHITECT.

Sir,—As Mr. Perks persists in misrepresenting in the Press the views of the 1922 Emergency Committee's candidates, I am requested by them to state :—

1. That they have no intention of "shattering the examination system," and that they regard the position of the Associate who has qualified by examination as inviolable.
2. That the sentence "bringing of all the architects of the United Kingdom into membership of the R.I.B.A." was, as Mr. Perks knows perfectly well, taken from a report which was particularly careful to define the word "architect," where used in the report, as referring only to the properly qualified man.

It should also be understood that the 1922 Emergency Committee's candidates are *not* standing for any particular method of obtaining registration and are *not* pledged to support the old Unification Committee's scheme, but they *are* pledged to consult the different interests concerned before committing the R.I.B.A. to definite proposals.—Yours, etc.,

MAURICE E. WEBB.
Hon. Sec., 1922 Emergency Committee

19, Queen Anne's Gate, Westminster, S.W.1.
May 7, 1923.

To the Editor of THE ARCHITECT.

Sir,—As an old member of the R.I.B.A., and one who has an earnest desire to see it prosper, I am impelled to express my opinion in favour of unification of the profession. In the public interest let us all combine to obtain the inclusion of every architect, whatever his qualifications, or want of qualifications, may be, in order that the increasingly arrogant and self-assertive position of the Associates, who may have happened to have passed a trifling examination, may be lowered, and they may be relegated to their true position as inconsiderable juniors of small account until they have proved themselves entitled to the Fellowship which alone seems to be the real test of professional ability.—Yours, etc.,

AN OLD FELLOW.

To the Editor of THE ARCHITECT.

Sir,—It will be admitted by all without question that there are two parties in the Royal Institute of British Architects, namely, those for unification, and those against.

The feeling against is real, and should unification ever be carried it will only be done against a strong minority.

Do the supporters of unification realise that if they carried their point the minority might possibly leave the Royal Institute and form themselves into an independent body and thus nullify the whole idea of unification ?

A.R.I.B.A.

To the Editor of THE ARCHITECT.

Sir,—I oppose unification, but think the outgoing R.I.B.A. Council acted with little good sense when they issued the house or official list of candidates.

To have included in this list the names of some members who favoured unification and left the issue to the election would have satisfied the opposition, whereas their omission has produced the present undesirable state of affairs.

Men that the R.I.B.A. can ill afford to lose, who have given many years of unstinted service, are likely to be alienated entirely. The opposition list is full of names of men well up in the profession and known to be very busy, and who with the best of intentions, I greatly fear, will find it impossible to take office or give a great deal of time to such matters.

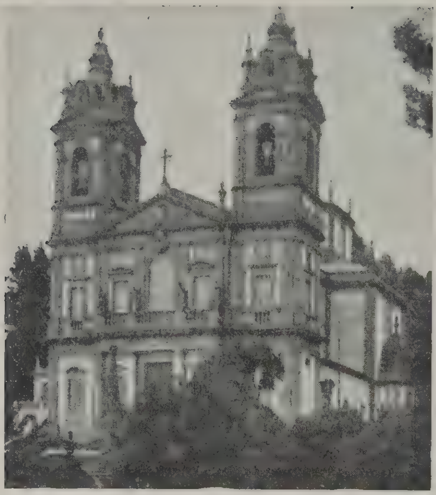
Yours, etc.,
ON THE FENCE.

At last week's meeting of the Rotherham Town Council the following tenders were accepted for non-parlour houses on the Doncaster Road housing site :—Mr. H. Dickinson, Rotherham, 26 to be erected in pairs and blocks of fours, for £682 3s. per pair and £1,368 5s. for blocks of four ; Mr. C. Boyd, Rotherham, 28 at £700 per pair and £1,400 per block of four ; Messrs. Baldwin and Co., Rotherham, 26 at £341 10s. each ; and Messrs. Currah and Lumsden, Sheffield, 24 at £346 each. Proposals for the rebuilding of Bow Bridge, on the Sheffield Road, at an estimated cost of £27,500, including an application to the Ministry of Transport for a grant towards the cost, were approved.

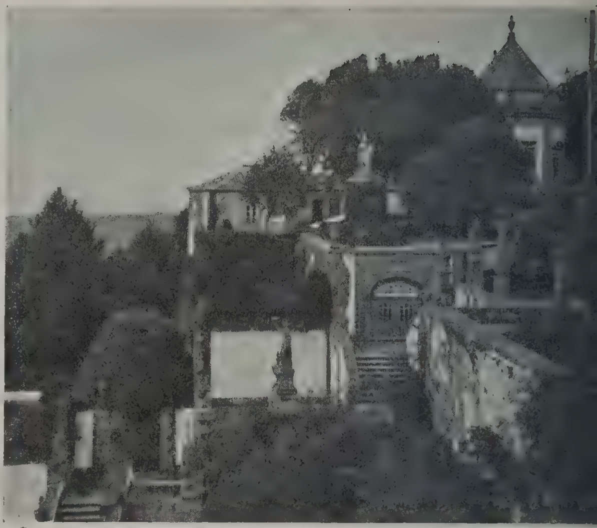
Notes from Portugal.

By G. A. T. Middleton.

No. XX.—Bom Jesus. (*Conclusion.*)



CHURCH OF BOM JESUS, NEAR BRAGA.



CROSS VIEW OF STAIRCASE, BOM JESUS.

A few miles to the east of Braga, at the top of a steep hill — the usual extinct volcano cone of Portugal and a solid mass of granite—there is a church known as Bom Jesus, the approach to which is of such an unusual and highly architectural character as to call for separate notice, which may at the same time fittingly close this series of articles.

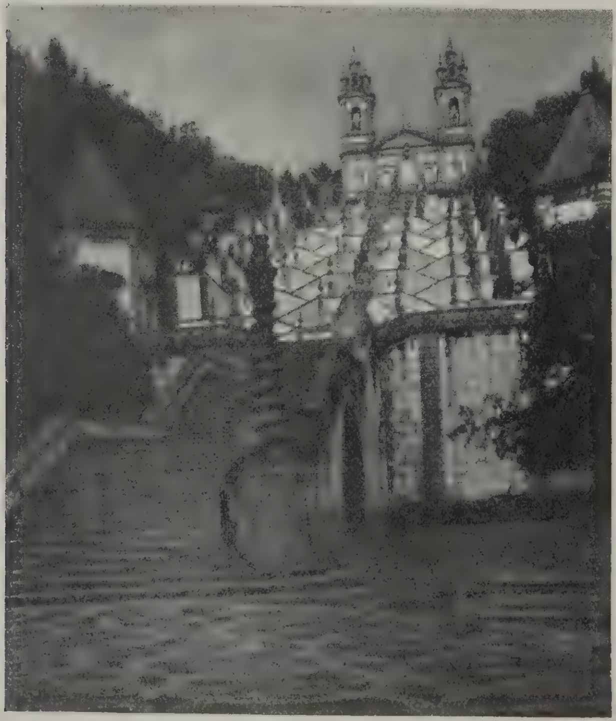
The hill is tree-covered, and the church is reached by a stairway. For some distance from the bottom this winds among the trees, slopes alternating with the stairs, with a small chapel at each of the abrupt turns. Each chapel contains a representation of one of the Stations of the Cross, the figures being life-size and vividly coloured.

About half-way up a broad platform is reached, paved with coloured pebbles laid to form a geometric pattern; and from this the church can be seen at the top of numerous flights of steps, of which the lowest one only rises along the axial line, the others being all double, turning right and left symmetrically, with platforms on the axis, and a drinking fountain centrally placed on each platform. There are also chapels, similar to those below, on each of the platforms, and the retaining walls of the stairways are adorned with granite statuary, while the walls have been plastered and whitened.

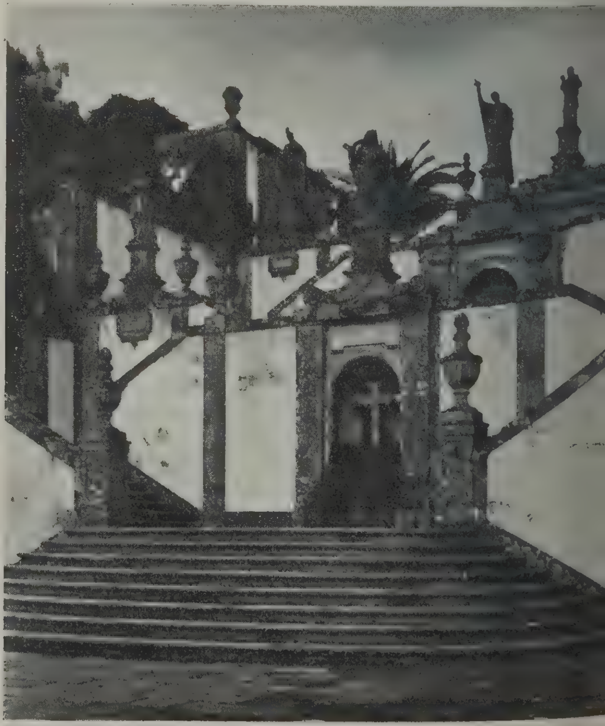
The whole thing, stairway and church, is in unison—a really great example of true architectural treatment as applied to a steep hill. The church itself, perhaps, is hardly worthy of its position—a good central feature would have better terminated the axis than the present void between the over-laden towers; but this may be allowed to pass. At any rate it is not likely to be rectified, for the whole has now been secularised. The church is closed by a group of hotels for tourists, and these modern pilgri reach the top by the aid of a funicular railway!

* * * *

A few towns which are reputed to have architectu interest were left unvisited while these articles were bei prepared, these being mostly near the Spanish border a difficult of approach. Perhaps in them Spanish influe might be more discernible: it is remarkable how little o Spanish character there is in Portugal on the whole. T country has, at different epochs, been open to influen from over sea in many different directions, and its arc tecture reflects these influences, and sometimes appears feel two simultaneously—generally the English and t French. Reaction is extremely rare—so much so as to practically non-existent. The only indigenous architectu is that of the short Manoëlian period. Nevertheless the are works of other dates which are worthy of close stud It has only been possible in these notes to indicate what to be found in a beautiful country, easy of access, a blessed by a perfect climate, and to suggest its use by t architectural student who wishes to open up new ground



THE GREAT STAIRCASE, BOM JESUS.



UPPER FLIGHTS OF STAIRCASE, BOM JESUS.

The Housing Tragedy.

E. G. Trobridge, Architect.

DRAINAGE.

In two previous articles I pointed out, firstly, that no olution of the above tragedy can come from the source that aused it—viz., houses which have only 60 years' life; econdly, that no matter in what form housing is financed, or the uncapitalised class it amounts to the same thing—iz., that the capital must be provided. I have pointed out hat if 95 per cent. of capital is advanced over a long period, ufficient sound borrowers of the uncapitalised class could e found to purchase all the houses which are required.

It is, however, necessary to most carefully exclude xpenditure which arises from unessentials and conventional rrors, because the borrowers of the uncapitalised class are, o a great extent, on the borderland of insolvency, and herefore must limit their liabilities to the irreducible ninimum.

The new houses will have modern fittings, such as w.c., ath and sink, then, and some rain water will have to be rained by the local authorities. With regard to the rain vater I wish to point out that down pipes have much to do vith the degenerating of houses by neglected leaks rotting he walls, etc. Many tiled and most thatched buildings of arrow width having no gathering seem to me to be the etter for the absence of such. In rainy seasons an rdinary cottage during the wet period discharges only an verage of 3 pints of water per foot run into gutters per 4 hours, and this amount can do very little harm. If it s desirable to protect against this it would be better to levate ground floor, extend projection of eaves, weather-oard or tile the first floor on the south-west side. It is to e noted that 20 per cent. less water reaches the ground f a building owing to evaporation than on open ground. Rain water is a great nuisance in the drains by causing hrough flooding foul deposits to line pipes, etc., at one verage flow level, and also rain water is a source of expense nd difficulty at sewage farms. From this I trust that it vill be seen that rain water drainage off narrow roofs is a ery doubtful blessing, and experience indicates that it is ot essential.

The other sections of drainage will here be considered as ccurring in inland districts, as the vast majority of new ouses will be situated there; also because it is by much the nost difficult problem. Most sewage is dealt with by oncentrating it to one place; the balance is discharged on and. This sewage is mostly pumped out of cess-pits, and he latter appears to be the best method of disposal, but is ot often possible, as large quantities of manure are not equired on the ground at all seasons. Heavy rainfalls are great difficulty to this system.

Generally speaking, the sewage disposal works or farm re the methods adopted.

If the land is flat, practically insuperable difficulties xist, with the result we have many drainage works we vould be much better without.

Let us examine a difficult modern London drainage ystem. Ground flat; soil, clay; area of district small; o area available for sewage works outside its boundary; ates will not provide for pumping station; lack of fall rings sewage farm close to a new village of two hundred ouses, and, when the wind is in certain directions, for ays the air is scarcely fit to breathe. This lack of fall ecessitates the drains being near the surface. The folly of his on clay soil is obvious: it means continuous leaks. he lack of fall gives its worst manifestation in the w.c.'s, ontinuously flooding up into the houses owing to blockages ausing the manholes to become cess-pits. This condition rises from six to ten times a year with almost all the houses. he areas around these houses swarm with various obnoxious ies. In spite of all this, this sewage work is cited as a nodern example and visited by many councils. In my pinion, it is the acme of idiocy.

Within two miles of this example is a large new disposal orks which does not suffer from lack of fall; but it is an bsolute curse to a large, closely inhabited zone, of which it is the south-west boundary. It keeps the place in a state of stench during the most prevailing winds. Personally I do not know any method whereby so much stench could be extracted from sewage and retained in the constant proximity of the houses.

In modern books on sewage it is admitted that districts which are as to drainage very defective do not appear to suffer therefrom. This rather goes to support the view that the smell of sewage is unpleasant rather than dangerous, and I think that, to a very great extent, improvements in health, outside medical influences, are due to the pure and unlimited supply of water which is now so general.

Flies are admitted to be a grave source of danger to health. Sewage farms provide the largest breeding grounds in the country. Kershaw (in "Sewage Disposal") states that percolating filters "form breeding receptacles for myriads of insects." . . . "Quite apart from the question of infection being carried by them, insects may occur in such vast numbers as to be a nuisance to the dwellers of houses in the vicinity, sticking to clothes, food, lamps, etc., and in bad cases occurring in such numbers as to make breathing without swallowing them a difficult matter."

From the foregoing I trust it will be admitted that any proposition which tends to reduce the defects of modern drainage should be considered with a very open mind.

In drainage, the aim of modern inland drainage is to separate sewage into grease, sludge and liquid. I maintain this should be done at the source of origin of the sewage and thus prevent the great defect of drainage—viz., concentration of large quantities.

I therefore make the following proposition: That each new officially-financed house shall drain into a tank of sufficient extent to serve for two months without cleaning, except as to liquid overflow. This tank to be subdivided into two sections—one for liquid and one for solid; or, if desired, into three divisions, so as to prevent urine mixing with other liquid. The waste from bath and sink to be fitted within the tank with a renewable straw grease trap. The liquid tank to be fitted with a semi-rotary pump for watering the garden and emptying the liquid on to the garden. The solids tank would be taken out by the council scavengers and buried where desired in the garden.

The result of this system would be that the internal effect of the house would be as at present and, save for the few minutes of emptying the solids tank about six times a year, there would be no smell. There would be no need for vast areas wasted in sewage farms, no breeding grounds for dangerous flies, garden watering would prevent waste of pure water for the purpose and the water would have distinct manurial properties in addition to tending to suppress aphis blight. Practically no pipes would be required; no F.A.I., only the usual vent pipes.

This sytem would bring into a high state of cultivation 500,000 acres, which would grow fruit and vegetables in the best possible manner, while the occupier would be quite free, as at present, from the disagreeable work of removing sewage.

The following facts will show that a plot of one-eight of an acre is quite sufficient to absorb without any offence all the waste of a house.

One acre will take the solid waste of 2,000 adults per acre continuously without making the ground sick.

The average water to be disposed of from such a system as proposed would be under 15 gallons per person per day. there being no allowance for rain water, water used for commerce or streets.

On the least suitable soils one-sixteenth of an acre only would be required, while on best soils one thirty-secondth would suffice for continuous use of ground for such drainage disposal purposes.

This system would effect great saving in water.

I venture to suggest that it has no substantial defects and, in addition, converts what is now a stinking waste into a most productive asset.

Messrs. Halliday, Paterson and Agate, architects, Manchester, are inviting tenders for the erection of the Stockport Memorial Hall and Art Gallery.

Royal Institute of British Architects.

The Annual General Meeting of the Royal Institute of British Architects was held on Monday, May 7, Mr. Paul Waterhouse, M.A., F.S.A., president, in the chair.

Mr. Arthur Keen, honorary secretary, announced the death of :—

Mr. James Davidson, J.P., elected Fellow 1906.
Mr. Edward Keynes Purchase, elected Fellow 1906.
Mr. Walter Wheeler, elected Associate 1879.
Mr. Joseph Henry McGovern, elected Licentiate 1912.

Mr. Waterhouse proposed and Mr. Arthur Keen seconded that the Report of the Council for the official year 1922–1923 should be adopted.

Abstract of the Annual Report.

The table of membership showed that there were 964 Fellows, 2,316 Associates, 1,408 Licentiates, 10 Hon. Fellows, 54 Hon. Associates, 45 Hon. Corresponding Members, and 47 Retired Fellows. During the official year since the last Annual General Meeting 35 Fellows and 178 Associates have been elected, as against 33 Fellows and 224 Associates in the previous year.

Of the 960 Fellows whose names appear in the current "Kalendar" 443, or 46 per cent., were elected from the Associate class; 184, or 19 per cent., were elected from the Licentiate class after examination; 324, or 33 per cent., were elected without examination under the conditions which existed before the grant of the Charter of 1909; and 9, or less than 1 per cent., were elected by the Council under Clause 2 of the Charter of 1909. Of the 2,316 members of the Associate class 1,008, or 43 per cent., have been elected since the date of the Armistice.

The membership of the Allied Societies, as shown in the last issue of the "Kalendar," now reaches a total of 4,133, including 1,032 Members and 400 Licentiates of the Royal Institute. The membership of the Architectural Association is now 1,615, including 631 Members and 79 Licentiates of the Royal Institute.

During the session several meetings have taken place between the Practice Standing Committee and representatives of the National Federation of House-Builders, the London House-Builders' Association and the National Federation of Building Trades Employers for the purpose of arriving at an agreed Scale of Fees payable to architects who are employed by speculative house-builders to prepare plans, details and elevations, but not to supervise work or to prepare specifications. A scale of fees has been agreed between the representatives, and is now under the consideration of the different bodies concerned.

On the recommendation of the Building Code Joint Committee, the Council have pressed the Ministry of Health to enforce their circular No. 332, and have urged the promotion of a Bill providing for the periodical revision of by-laws, for a greater uniformity than exists at present, and for the establishment of a power of appeal.

Plans have been prepared by the Hon. Secretary (Mr. Arthur Keen) for alterations and additions to the R.I.B.A. premises at 9, Conduit Street. These alterations comprise the rebuilding of the Great Gallery and the altering of the East Gallery. It is hoped that work will be begun in June and completed in November.

The Council approved, on January 8, 1923, the Draft Registration Bill, prepared by the Registration Committee. This Bill was submitted to a General Meeting of members on January 29, 1923, when a resolution was carried by the necessary majority that the Bill be not considered until the other professional societies and interests affected had been consulted, and a general consensus of professional opinion obtained in favour of the Bill. The Council have taken the necessary action in accordance with this resolution.

The delegates appointed by the general body carried through, during the summer of 1922, prolonged negotiations with the Ministry of Health as to housing fees. The result has been the issue of G.H.M. No. 61. Under the provisions of Clause E (4) of this Memorandum, the R.I.B.A. was made the certifying authority as regards architects who had carried to execution no houses for any local authority under the State-assisted scheme. In order to administer this clause a tribunal consisting of the three members who had previously acted as delegates (Mr. Francis Jones, Mr H. T. Buckland, and Mr. H. A. Welch) was appointed. In addition to their duties under Clause E (4) they have advised, unofficially, a great number of housing architects upon their accounts for "partially abandoned" schemes. They have already dealt with approximately 170 cases. The thanks of the whole profession are due to the members of the tribunal for their untiring labours in the interests of architects who have been engaged on housing schemes,

Negotiations with the representatives of the Building Trades Employers as to conditions of contract have continued since th publication of the last Annual Report. The Conditions o Contract Conference in July, 1922, appointed a Drafting Com mittee to proceed with the preparation of an agreed Form o Contract, and a Tribunal of Appeal, under the chairmanship o Sir William Mackenzie, with one architect and one contractor a members, to decide all points upon which agreement could no be reached. Negotiations are now proceeding along thes lines.

The report of the Art Standing Committee urging that th R.I.B.A. should support the scheme for a new road and a general traffic bridge at Charing Cross was referred back to th Committee for reconsideration :—(1) By making provision fo carrying the railway traffic from the south side to Charing Cros either by railway under the new general traffic bridge or by a tube under the river; (2) by omitting from the report any specific condemnation of the proposed St. Paul's Bridge; (3) by considering the effect of the St. Paul's Bridge upon the clearanc of insanitary areas between Blackfriars and Westminste Bridges, as well as the effect of the Charing Cross Bridge upon the clearance of insanitary areas in the neighbourhood o Waterloo; (4) by disclosing to the Council the data upon which the conclusions of the Art Standing Committee have been founded.

The Council have decided to hold an International Congress on Architectural Education in London in the autumn of 1924 The Congress will consist of special meetings for the purpose o considering the history, position and prospects of architectura education, with special reference to the following points :— Revision of the Methods and System of obtaining Professiona Qualifications; Sources of Study; Use of Travel; Prizes and Awards of Honour; Preliminary Studies; Detailed Subjects (Draughtsmanship, Study of History, Practical Handwork Professional Journals, Contact with Works); Examinations (Standards, Relation to Practice, Paid Examiners); Promotion of Post-Graduate Studies (Relation to Preliminary and Genera Education).

On the recommendation of the Board of Architectural Educa tion, the Council have decided that candidates who have sat for and failed to pass the Special War Examinations shall be allowed to sit for the Special Final Examination at any time up to the end of 1925. Candidates who have failed in this Examination on only one occasion will not be required to pay a further fee but those candidates who have had two or more attempts will be required to pay the ordinary fee for the Special Final Examination.

The Art Committee views with satisfaction the increasing notice that architecture and the allied crafts is receiving from the Press and the consequent stimulated interest in this important aspect of life. The Committee has recommended the Council to approach the London County Council with a suggestion that it should take steps to obtain powers to control street advertising generally, including the use of flashing and other illuminated signs upon the exterior of buildings and the disfiguring apparatus connected therewith.

The Literature Standing Committee especially express their thanks to Mrs. Favarger for the presentation of the valuable collection of books which formed the library of the late Mr. Henri Favarger [*F.*], which contained numerous rare volumes not hitherto in the Institute collection.

The Practice Standing Committee have been considering the question of "Architects as Limited Liability Companies," and obtained the views of kindred professional societies on the matter. The Committee advised the Council that they considered it undesirable for members of the R.I.B.A. to form themselves into limited liability companies for the purpose of carrying on the profession of an architect. The Committee also had under consideration the draft Regulations dealing with scaffolding plant and machinery used in the construction, alteration, repair or demolition of buildings which the Secretary of State proposed to make in giving effect to the recommendations made in 1907 by a Departmental Committee and further considered in 1919 by the Joint Industrial Council for the Building Trade, who agreed in advocating these Regulations. The Committee considered the proposed Regulations unnecessary, many impracticable and useless, whilst their adoption would only increase the cost of building. The Committee also had before them the opinion of the builders' organisations, which were also opposed to the setting up of these Regulations.

The Practice Standing Committee emphasise the desirability of architects acquainting their clients at the earliest opportunity with the R.I.B.A. Scale of Charges to avoid their accounts being fterwards disputed, as the Law Courts do not recognise the cale as binding unless it has been brought to the client's notice nd agreed beforehand, and they will usually only award payient for services rendered on the basis of *quantum meruit*, lthough no doubt the R.I.B.A. Scale would be taken into onsideration in determining this amount.

Many questions of professional practice have been answered, nd where these appear to be of general interest a résumé has een sent to the JOURNAL for publication, but the committee, hilst they are pleased to be of service to their brother archiects, cannot help expressing surprise at the elementary nature f many of the inquiries they receive, and suggest to the council ne advisability of making some recommendations to the Board f Architectural Education on the subject.

The Science Standing Committee note that they have arranged ith the Building Research Board for certain experiments as to rchitectural acoustics, and that Mr. Hope Bagenal, A.R.I.B.A., ho has made a special study of the subject, will be associated ith the Board. It is the aim of the committee to produce a nall brochure on this subject :—Firstly, to collate the experiental work already done, both in America and in this country ; nd secondly, to lay down, if possible, some principles to guide rchitects upon the planning, construction and decoration of uildings for their acoustical properties, having regard to the urposes for which they are intended.

The Competitions Committee have dealt with 27 competitions. ut of this number there have been some cases where the comittee had approved the conditions previously but were required give rulings in matters arising out of the carrying out of the onditions.

Seven competitions have been banned at the request of the ommittee ; out of that number in one case the promoters vised the conditions to the committee's satisfaction. In six ises long negotiations with the promoters were necessary in rder to secure a proper set of conditions ; out of this number, one instance the attitude of the promoters was such as to ecessitate the refusal of the Assessor to act.

During the period under review it has been noted with satisction that there is a growing tendency on the part of the romoters to appoint qualified Assessors before the issue of ompetition conditions.

The Hon. Auditors note with satisfaction that the income for 922 amounted to £23,372 1s. 11d., an increase of £1,764 6s. 5d. er last year ; and the surplus was £1,173 7s. 11d., against 375 4s. 5d. for the year 1921. There are slight increases in the nount of subscriptions received, a very satisfactory increase the sale of the JOURNAL and other publications, receipts for lvertisements and rent from tenants.

The fees received for the special war examinations show a nsiderable increase, but will not occur again, as these examinaons ceased at the end of 1922.

Increases have occurred on the following items of expenditure er last year :—(1) Rent of premises ; (2) interest on mortgage ;) fuel ; (4) general meetings and exhibitions ; (5) medals and izes ; (6) grants to various societies ; (7) miscellaneous expenses, rtly due to legal expenses in connection with the purchase of nd in Maddox Street and the mortgage on the Institute emises.

Savings have occurred as follows :—(1) Rates, taxes and hting ; (2) salaries ; (3) general printing ; (4) "Kalendar."

DISCUSSION

Mr. William Woodward announced, amid cheers, that this was e twenty-eighth year in succession in which he had said a few ords upon the Annual Report. After a cursory review of it got the impression that the Institute were verging upon diletnticism in some respects—that they were losing the substance r the shadow. For instance, they had nineteen boards and mmittees, some of them no doubt pertaining closely to the ork of the Institute ; some of them not quite so much, such the "British Engineering Standards Association, Subommittee on Cast Iron Half Round, O.G. and other Moulded utters," or "The National Association for the Prevention of uberculosis, Ninth Annual Conference." Whenever he saw the ord "Research," "Ferro-concrete," or words of that description always thought of the blessed word "Mesopotamia." With ference to the R.I.B.A. premises, he trusted that when the terations and additions were effected they would include some rt of decent lavatory accommodation. The reference to the gotiations as to "Conditions of Contract" reminded him at he had served on a sub-committee dealing with the subject me fifty years ago. He begged the council, when discussing e Charing Cross Bridge, to bear in mind the mistakes made connection with the Gare de Lyons in Paris : his own opinion as that to transfer Charing Cross Station would be a fatal under. It was very pleasant to see that the Board of Architectural Education were now prepared to furnish those students whose work had been rejected with a general criticism of their designs. The increased attendance of readers showed the great value of their Reference Library. He was glad the Practice Standing Committee had opposed the setting up of the suggested "Home Office Regulations for Buildings" ; personally, any suggestion of a Government department interfering with anything he was connected with was like a red rag to a bull. The reason for defective acoustics was the very simple one that architects would not bear in mind the long-accepted order in acoustic merit of materials—viz., (1) wood, (2) plaster, (3) brick, (4) stone, (5) marble. The Science Standing Committee had the following specially exhilarating paragraph :—

"*Atmospheric Corrosion of Non-Ferrous Metals.*—A joint-committee of the R.I.B.A. and the Institute of Metals is engaged upon researches into the decay of brass and like fittings used in buildings as a branch of an association under the Industrial Research Department. Mr. Alan E. Munby, as Chairman of this committee, has presented a long Interim Report prepared by Mr. Vernon, who is the committee's full-time Research Investigator. Plates of brass, copper and other metals have been exposed to various atmospheres in different conditions as to surface finish and the corrosion estimated by weighing and loss in reflecting power. The research is proceeding and will take some years to complete. . . ."

The finances of the Institute were most satisfactorily summed up in the fact that the surplus was £1,173, as against £375 last year, and the income showed an increase of £1,764. He wished a fund could be raised to protect young architects who are ill-treated by clients because they have not the money to fight. Reverting to the Office of Works and the bureaucratic spirit generally, Mr. Woodward said he fell foul entirely with the work done on the roof of Westminster Hall—one of the finest examples of carpentry in this country. He believed that if the repair had been left in the hands of skilled carpenters there would never have been any need for the present most regrettable girders. Under a certain Act various abbeys, castles and other buildings had been handed over to the care of the Office of Works, whereas they ought to be under independent and sympathetic architects. It was in matters such as this that the Royal Institute should intervene and exercise its great powers. In conclusion, Mr. Woodward paid a tribute to the retiring President and to the staff. A great deal of the success was due to the co-ordination of the staff. Mr. MacAlister had been with them 15 years, Mr. Dircks 30½ years, Mr. Baker 22½, and other members for long periods. Anyone who had known their Past-Presidents would agree that there had not been one who had more strenuously devoted his time and intellect to the affairs of the Institute than had Mr. Paul Waterhouse. The President would leave the chair not only with the sincere affection of every member of the R.I.B.A., but of every architect in the country and with their best wishes for future health and prosperity.

Mr. Paul Waterhouse acknowledged the kind remarks about himself, and spoke enthusiastically of the devotion of the R.I.B.A. staff to the body corporate.

Mr. Arthur Keen said their President had made it a practically whole-time job, and had not spared himself in any way. Mr. Waterhouse would be missed from the moment he left the chair. He could thoroughly endorse all that had been said about the staff.

Mr. H. W. Burrows, as chairman of the Science Standing Committee, contended that the reasons for appointing representatives to the various societies and committees of inquiry was not altruistic.

The President moved that a hearty vote of thanks be accorded to Mr. John Hudson [*F.*] and Mr. A. W. Sheppard [*A.*] for their services as Hon. Auditors for the past year.

The President stated that Mr. R. Stephen Ayling [*F.*] and Mr. C. E. Hutchinson [*A.*] were both eligible and willing to be nominated as Hon. Auditors for the current year, and therefore he moved that these gentlemen be so nominated. This was carried.

The Hon. Secretary announced that the next Ordinary General Meeting will be held on Monday, May 28, at 8 p.m., when Mr. Delissa Joseph [*F.*] will read a paper on "Building Heights and Ancient Lights." He also reminded Members and Licentiates that the Annual Conference will be held in Edinburgh June 13–16, and said that all who intended to take part were asked to notify the Secretary as early as possible in order to facilitate the arrangements that are now being made.

Dumfries Town Council have agreed to proceed with the erection of 48 two-apartment houses at the cost of £320 each preparatory to starting on the scheme for demolition of slum properties in Queensberry area. The houses are to be built of Dumfriesshire sandstone at the Creswell site.

Modern Methods in Building Construction.—XLII.

By Albert Lakeman, M.S.A., M.C.I.

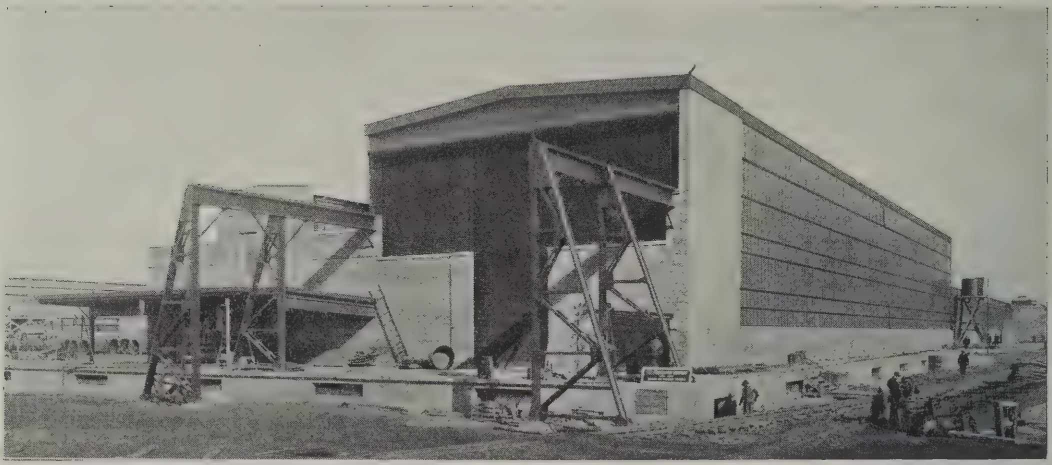


Fig. 187. EXAMPLE OF LARGE GLASS AREA

Opening Lights and Glazing.

The natural lighting and ventilation of a building should be carefully studied when the design and working drawings are being prepared, in order to take full advantage of the modern devices and products that are available, and which are suitable for use under various conditions when it is necessary to provide arrangements based on scientific principles applicable to the problem under consideration. It will be readily admitted that the importance of sufficient and efficient natural lighting cannot be over-estimated, while the obvious advantages of providing good natural ventilation will be apparent to all designers, and as the two subjects are usually allied, they can be dealt with in the one article to avoid repetition of detail. The type of building and the purpose for which it is intended will obviously affect the questions of lighting and ventilation, and, as with many other sections of building work, it is therefore impossible to lay down any hard-and-fast rules which will be applicable to all cases. The arrangements for natural lighting in a picture gallery will require quite a different treatment to those necessary for a factory building, while an office block will have to be governed by considerations that would not apply to a warehouse. In many schemes it is also practically impossible to provide ideal natural lighting, on account of the limitations placed on the designer by the location and size of the building, and under these circumstances it becomes necessary to take full advantage of whatever lighting area is available.

It is quite possible to provide too much light, and, in fact, this is a common error when the subject is dealt with in a haphazard manner without a proper regard for the intended usage of the building. Sufficient light should be provided for and this should be distributed over the area of the building as far as possible to give uniform lighting by placing the openings in suitable positions and by the use of satisfactory glass. If the natural light is excessive, it will be likely to affect both the workers and the articles that may be placed in the building. In the first case a strong light on the south side subjects the workers to the direct rays of the sun unless some special protection is given during the summer, and the glass will be detrimental to the eyesight, and in some classes of work will seriously interfere with the operations owing to a reflection from any bright parts that are being dealt with. A strong light from the south side will also cause damage to fabrics of various kinds, and, in fact, the majority of goods placed in storage will be adversely affected by the sun's rays if these fall directly into the warehouse.

In the case of natural ventilation the arrangements must be capable of being easily controlled to allow the openings to be varied according to the outside climatic conditions, and, as these may change considerably during a single day, the arrangements should be simple, and provide for operation by unskilled persons.

The lighting will be provided by windows, and in case of the top floors or single-story buildings by roof-lights, and both or either may be adopted according to the conditions and requirements. Many buildings used for special purposes cannot be ventilated satisfactorily by natural means, and these will not, therefore, come within the scope of these present notes, but must form the subject of a separate article dealing with mechanical ventilation. No fixed rule can be laid down for the proportion of glass area to the floor area of a building, as the conditions and requirements will vary, and experience will be the best guide to the designer. Generally speaking, however, a factory building should be arranged with north roof-lights; offices, domestic buildings and similar structures should be provided with windows only; stores and warehouses should have a small amount of roof lighting; large public buildings can be provided with windows and top lights, and cinema halls will require a minimum amount of very subdued natural light only. An example of contrast in provision for natural lighting is afforded by the illustrations in Figs. 187 and 188. The building shown in Fig. 187 was erected at a machine tool shop where work of a rather fine nature had to be executed, and a good light was essential. Several long lengths of the glazing are hung at the top to open outward for ventilation, and no roof-light was considered necessary over the crane bay when the large amount of wall lighting was provided. While dealing with this building it may be of interest to mention the arrangements made for unloading heavy material from the railway trucks adjoining the deck at one end of the shop, and taking same direct into the building. As can be seen on the illustration, the crane rails are extended through the end wall and carried on girders supported by steel-framed trestles, the travelling crane thus being able to move outward to come over the tracks and operate above the trucks for the purpose of lifting the load. To enable the crane to pass in and out of the building with a heavy load, a large opening was necessary, and this was provided with revolving shutters arranged in three sections. These shutters are raised and lowered by electric power. When the three sections are all lifted clear of the opening the hinged guides between the sections are also raised electrically, and the entire opening is left clear.

The building illustrated in Fig. 188 was designed and erected for storage purposes where a certain amount of natural lighting was necessary, but an excess of light might prove detrimental. All the windows have a portion pivoted on a centre to open, and the monitor lights in the roof are arranged to open in long lengths. It will be seen at a glance that the ratio of lighting area to floor area is

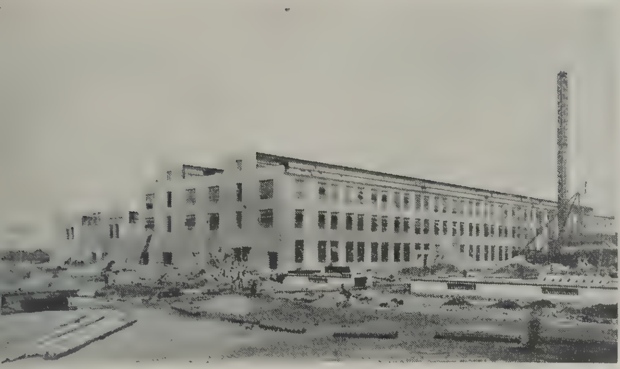


Fig. 188. EXAMPLE OF ORDINARY WINDOW LIGHTING.

very different in these two buildings and a fixed rule is therefore impossible.

The type of glass used is of great importance, and this aspect of lighting is very often insufficiently considered by architects when specifying the glazier's work. The types of glass available will include ordinary sheet, plate-glass, prismatic, wired, rough-cast, all kinds of so-called obscure glass, and special-made glass for abnormal requirements. Ordinary sheet- and plate-glass are satisfactory for a large amount of work, and no special comment on these is necessary, but sufficient advantage is not usually taken of glass which is made on scientific lines for breaking up the rays of the sun and giving a diffused light. In one large factory designed by the author, while in America, it was necessary to provide top lighting on both the north and south sides of the roofs, but at the same time the direct rays from the sun would be detrimental to the materials used in the manufacturing process, and precautions had to be taken to prevent a band of direct sunlight down the length of the shops from the south lights. An investigation of the various types of glass available led to the adoption of "Factorilite" glass, which was plain on one surface but broken up into minute prisms on the other, and the makers claimed that the effect of these prisms was to break up all the direct rays and diffuse the light to all parts of the building within a certain specified distance from the glazing. The cost of the glass was identical with that ruling for a rough rolled plate, and it was decided to make a trial. When one of the buildings was erected and roofed without any glass in the lanterns it was well lighted, but on a sunny day a broad band of sunlight occurred on the floor from the south light throughout the whole length of the shop. The "Factorilite" glass was then applied, and as the glaziers worked along the building the band of sunlight entirely disappeared and the direct rays were absolutely broken up as claimed. The contrast was so striking that it was possible to tell if a single pane of glass was missing from the roof without looking up, but by observing the patch of sunlight on the floor.

The resultant light was ideal for any purpose, as there was no glare, but a good general light everywhere. This fact will be appreciated by those who have been in America, as the light in that country in the summer is very strong and clear, with a consequent strain on the eyesight unless some protection is afforded. In the case of articles made of rubber the rays of the sun will prove very detrimental, and a warehouse devoted to the storage of such articles will require special treatment as regards the glazing. A non-actinic glass can be procured which will entirely eliminate the ultra-violet rays in the interior of the building and cause the light to be very subdued but sufficient for the storage purposes. This glass was originally made for use in airship hangars, to prevent damage to the rubberised fabric, and for this purpose it was quite satisfactory. The special properties are not due entirely to the colour of the glass, but also to the method of manufacture, which is different to that employed for ordinary types of glass; in fact the materials and methods are so distinct that one large firm of makers would only supply the glass to special order for a large quantity, as the manufacture of ordinary types of glass had to be entirely suspended, while the non-actinic kind was being put through. This glass is comparatively expensive, and would only be adopted in special cases, when the additional outlay will result in preserving the quality of the stock. With regard to the ordinary obscure glass of different types that can be obtained, these are, in the majority of cases, only semi-obscure, and when used for lavatories and similar purposes are very unsatisfactory, especially when artificial light is used inside the apartment during the evening, as persons can be clearly seen by anyone outside. This is also quite frequently the case during the daytime when the sun is in a certain position in relation to the windows. For this reason the author has had occasion to change the glass in large industrial buildings, where the sanitary accommodation is an important item, owing to the selection made by the architect at the time of the installation not having been carefully made as regards obscurity. Wired glass is a comparatively modern type, and it is an excellent material for skylights and roof-lights generally, and for any position where danger will be caused to persons if the glass becomes broken and can fall below. This type is also used in fire-resisting work where it is desirable to keep the glass in position and prevent the spreading of the flames through the light in the event of a fire in the vicinity. It is a form of reinforced glass where the reinforcement consists of small wire mesh cast in the thickness of the glass, thus binding together what is a very brittle material. It is more expensive than the plain glass of the same type and quality, but the additional outlay is frequently justified. A very good example of special glass is the prismatic type, which is frequently adopted in basement windows where it is necessary to reflect or diffuse the daylight into the building as much as possible. In order to get any benefit from the use of this prismatic glass it is essential for it to be exposed to a direct light, as a borrowed or indirect light will not be sufficiently powerful to cause any diffusion into the building, and ordinary clear glass will give practically the same results. The makers of prismatic glass will invariably advise an architect on the question of its application in the most efficient manner, as each scheme will probably present a different problem, and the subject of light diffusion by special glass is one calling for treatment by a specialist rather than by the architect. The point to be borne in mind is, however, that a great improvement in lighting can frequently be obtained by the use of prismatic glass, and where the direct light is limited the archtect should not fail to take advantage of the special glass available. When the direct light is not limited, it may still be possible to improve the distribution if a special glass is used in lieu of one of the ordinary type, and the selection of the glass should be carefully considered, therefore, and not be determined by reference to a standard office specification, as is frequently the case.

The opening parts for natural ventilation in the case of windows will depend on the size of the lights, their disposition, and the material adopted for the windows, and, to some extent, on whether opening lights are available in the roof. It is, however, better to provide a large area of opening parts where this is practicable than to keep the openings to the minimum, as it is an easy matter to keep them partly or wholly closed if not required, whereas the lack of sufficient provision may entail considerable expense and inconvenience at a later date. Generally speaking, a light which is pivoted horizontally is preferable to any other kind for ventilation purposes, and the ordinary casement window is the most unsuitable. The chief consideration should be the possibility of keeping the lights open during rainy weather, and it will be found that with ordinary casements this is not possible without rain beating into the apartment unless the window is on the leeward size of the building, and it is very sheltered.

In the case of a hoizontally-pivoted light or a fanlight which is hinged at the top to open outwards, it is seldom that rain will find its way into the building if the opening is properly adjusted and arranged, and in the event of drifting snow or exceptional driving rain the external conditions will usually make it undesirable to have any portions

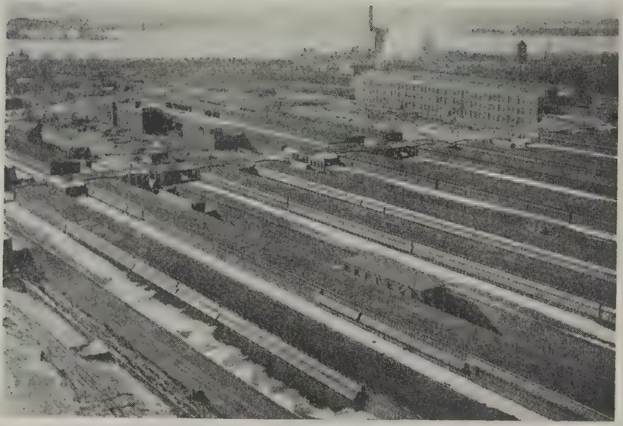


Fig. 189. OPENING ROOF LIGHTS.

of the windows open until the weather improves. The character and materials used for the windows are frequently influenced by the general external treatment of the building rather than by the practical requirements of the inside lighting and ventilation, while the question of making the lights open easily for cleaning purposes is one which is seldom considered.

The fastenings and opening devices for ordinary windows do not call for much special comment except that mention may be made of the advantage of using a folding casement-stay which retains the sash in any position automatically, thus forming a fool-proof device and avoiding the broken glass and strained hinges which result when ordinary casement stays are provided, and careless users frequently leave the window open without placing the stay on the pin.

In the case of opening roof-lights the gearing or opening device is of great importance, owing to the inaccessibility of the light itself. In modern work it is frequently advantageous to open the roof-lights in long lengths, and when the depth of the glass is limited to about 3 feet there is no difficulty in opening and closing a length of 200 feet in one operation, and with one set of gearing. Fig. 189 is a bird's-eye view of some factory buildings where the long opening roof-lights can be seen, and these were all controlled by a tension-rod gearing hand operated by an endless chain. With this type of gearing the weight of the light is carried by pairs of brackets and rotating arms spaced at intervals of about 10 feet, these being attached to the roof-trusses or stanchions, and thus the energy required to operate the gear is very small, consisting merely of rotating a gear-wheel at one end which in turn exerts a pull on two parallel tension rods attached to the rotating arms. The light can be opened to the full extent or to any less degree, and will remain in that position without any fastening, as the closing can only be effected by pulling the operating chain to rotate the gear-wheel in the reverse direction, and again bringing the tension-rods into action. This type of gearing is preferable to the more general type, which consists of a vertical spindle with a worm-gear rotated by a winding handle at the lower end, and which at the top rotates a horizontal rod to which the opening arms are attached.

Considerable energy is required to open a long length of light by this method, and a rigid fixing is required to prevent the gear-box being pulled away from its position, while a length of 200 feet in one run would be impossible to operate. In dealing with roof-lights attention must be paid to the type of glazing bar which is adopted. These may be of wood or metal, and in the case of the latter they may be steel galvanised or lead-covered.

There has been considerable controversy on the relative merits of plain and lead-covered bars, but the latter are generally selected as being the better type, on account of the saving in maintenance costs after installation. A plain metal bar, even when galvanised, will soon require painting, and it must be periodically treated to prevent corrosion, especially in some situations, and owing to the position in which it is fixed this painting work is likely to be expensive, and usually inconvenient. With a lead-covered bar it is essential that the lead covering be absolutely intact and hermetically sealed, otherwise moisture will penetrate inside the covering and a galvanic action will set up between the two metals, which will result in the substance of the bar becoming entirely decomposed. This defect is very serious on account of the fact that the lead covering remains apparently intact and the loss of strength will not be known until the bars collapse, and there is a risk of injury to persons below. There are several good patent glazing bars on the market to-day, and if these are obtained from makers of repute they may be used with confidence, while replacements of broken glass will be executed more expeditiously and economically with patent bars than with ordinary wooden bars, where the glass is held in position with putty.

(*To be continued*)

PART I.—I. Introduction, Steam shovels, Jan. 13; II. Steam shovels, Trench diggers, Jan. 20; III. Grab buckets, scrapers, Jan. 27; IV. Drag-line excavators, Feb. 3; V. Derricks and cranes, radial loader, paving-breakers, Feb. 17; VI. Surplus Soil Transport (Hand Labour), Feb. 24; VII. Surplus Soil Transport (Horse-drawn wagons, Steam-driven wagons), Mar. 3; VIII. Surplus Soil Transport (Steam-driven wagons), Mar. 10; IX. Surplus Soil Transport (Steam-driven wagons, Petrol wagons, Narrow-gauge track with wagons), Mar. 17; X. Surplus Soil Transport (Narrow-gauge track with wagons, Trucks on Standard-gauge track, Electrically-driven trucks and vehicles), Mar. 24.

PART II.—XI. Foundation Work (Ordinary soils, Soft soils), April 7; XII. Foundation Work (Soft soils), April 17; XIII. Foundation Work (Soft soils), April 21; XIV. Foundation Work (Soft soils), April 28; XV. Foundation Work (Soft soils), sheet piling, May 5; XVI. Foundation Work (Soft soils), steel-sheet piling, May 12; XVII. Foundation Work (soft soils), steel-sheet piling, pumping, May 19; XVIII. Foundation Work (Soft soils), pumping, May 26; XIX. Foundation Work (soft soils), foundation piles, June 2; XX. Foundation Work (soft soils), foundation piles (*cont.*), June 9; XXI. Foundation Work (soft soils), foundation piles (*cont.*), June 16; XXII. Foundation Work (soft soils), Waterproofing, June 23; XXIII. Foundation Work (soft soils), Waterproofing (*cont.*), June 30; XXIV. Waterproofing (*cont.*), July 7; XXV. Water Supply, July 14; XXVI. Concreting, July 28; XXVII. Concreting (*cont.*), August 4; XXVIII. Concreting (*cont.*), August 11; XXIX. Concreting (*cont.*), Aug. 18; XXX. Concreting (*cont.*), Aug. 25; XXXI. Form Work, Sept. 1; XXXII. Form Work (*cont.*) Sept. 8; XXXIII. Brickwork, Sept. 22; XXXIV. Superstructure Frame, Sept. 29; XXXV. Superstructure Frame (*cont.*) Oct. 6; XXXVI. Steelwork Erection (*cont.*), Oct. 13; XXXVII. Floor Construction, Oct. 20; XXXVIII. Floor Construction (*cont.*). Dec. 8; XXXIX. Floor Construction (*cont.*), Dec. 29; XL. Partitions, March 30; XLI. Roof Work, April 13.

Competition News.

In connection with the pulling down of the Edinburgh Life building in Cross Street, Manchester, a number of the leading architects in Manchester are to be invited to submit draft plans for the new building which is to be erected on the site. The new building will consist of office and shop property, and Mr. Arnold Williams, the purchaser of the site, has arranged for the draft plans to be submitted to Professor C. H. Reilly, the assessor.

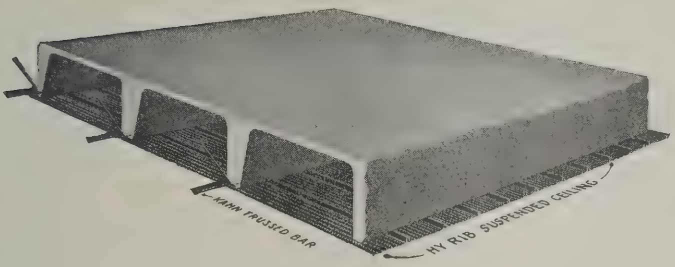
Members and Licentiates of the R.I.B.A. must not take part in the competition for a proposed Infant School at Fauldhouse arranged by the Linlithgowshire Education Authority because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

The result of the Dewsbury War Memorial Competition, for which Professor C. H. Reilly, M.A., F.R.I.B.A., acted as assessor, has now been announced. The names and addresses of the successful competitors are:—No. 66, W. Naseby Adams, A.R.I.B.A., 14 Ladbroke Grove, W., and E. R. Arthur, B.Arch., 22 Westbourne Gardens, W.; No. 118, Willink and Dod, Cunard Building, Liverpool; No. 54, A. Spence Atkinson, M.S.A., 10 Richmond Terrace, Blackburn. The names of the five other commended competitors are as follows:—Messrs. Grayson and Barnish, Liverpool; Mr. John Williams, Two Dales, near Matlock; Mr. E. Berry Webber, 8 New Square, Lincoln's Inn, W.C.2; Mr. William Henderson Duthie, 4 and 6 Throgmorton Avenue, E.C.2; and Mr. James MacGregor, A.R.I.B.A., School of Architecture, The University, Manchester.

The Committee appointed to watch the prices of building materials held their first meeting at the Ministry of Health on May 1. Sir Halford Mackinder presided. Mr. Neville Chamberlain, the Minister of Health, in addressing the Committee, emphasised the important bearing of their work in the new housing proposals of the Government. Sub-committees were appointed to take preliminary steps.

TRUSCON HOLLOW FLOOR

Long Span Slabs with Flat Ceilings



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Forthcoming Events.

Saturday, May 12.—Architectural Association. Visit to the Stadium and British Empire Exhibition Buildings at Wembley. To meet at Resident Architect's office. 2.30 p.m.

Institution of Municipal and County Engineers. District Meetings at Mitcham, Nuneaton and Merthyr.

Monday, May 14.—Architectural Association. Meeting at 35 Bedford Square, W.C. Discussion on "The A.A. Excursion to Holland, September, 1922." Nomination of Officers and Council for Session 1923–24. 8 p.m.

Tuesday, May 15.—Architects' Benevolent Society. Annual General Meeting at 9 Conduit Street, W. 5 p.m.

Wednesday, May 16.—Royal Society of Arts. Meeting at John Street, Adelphi. Paper by M. Leon Gaster, F.J.I., on "Industrial Lighting and the Prevention of Accidents." 8 p.m.

Local Bonds for Housing.

By the terms of Section 7 of the Housing (Additional Powers) Act, 1919, a Local Authority may, with the consent of the Minister of Health, borrow any sums which they have power to borrow for the purposes of the Housing Acts, by the issue of Local Bonds in accordance with the provisions of that Act. This will include any loans for which they may obtain loan sanction under the Housing Acts in connection with the proposals contained in the Housing Hill now before Parliament.

Local Bonds bear interest at such rates as the Treasury may fix. The rate of interest on Local Bonds issued on or after April 1, 1922, was fixed at 5 per cent. per annum. His Majesty's Treasury have decided that the rate of interest on Local Bonds issued on or after the 7th instant shall be 4½ per cent. per annum.

If, however, a Local Authority satisfies the Minister of Health that a different rate can properly be fixed, he will be prepared to ask the Treasury to fix a special rate for that Authority.

"The Architect" Fifty Years Ago.

MAY 10, 1873.

THE NEW SCHOOLS AT OXFORD.

Last June, it may be remembered, delegates were appointed by the University of Oxford to obtain plans for the schools which are to be erected on the site of the Angel Hotel. Accordingly, Mr. A. W. Blomfield, Mr. T. M. Deane, Mr. J. O. Scott, Mr. Street, R.A., and Mr. A. Waterhouse were invited to furnish designs. Mr. Street and Mr. Waterhouse, however, declined. Designs by the other architects were received in January, and were submitted to surveyors for valuation, and at length the design of Mr. John O. Scott was adopted. This was estimated to cost £49,000, but some alterations which have been made will, it is expected, reduce the amount by £1,500 or £2,000. The report of the delegates has now been published, and the plans have been exhibited to the public in Oxford. As the question of appropriating some part of the frontage in High Street to private houses or business premises has been a subject of much discussion, the delegates thought it right in their instructions to call the especial attention of the architects to this point. They attach, however, great importance to the reason given by Mr. Scott for not attempting such appropriation; namely, "that unless the building were brought up to the line of frontage it would be impossible to obtain all the accommodation that is required, unless indeed the spaces left free from building were so small as to be altogether inadequate to the supply of that abundance of air and light which is so absolutely necessary." This is also his reason for not fully carrying out another suggestion made by the delegates in the latter part of No. IX. of their requirements, that all the examination rooms should be kept back from the street. The delegates, in conclusion, think it right to say that they recommend the approval of Mr. Scott's design as being a good one in itself, not merely as the best of those which were submitted to them. They think it will amply furnish the accommodation required; the estimate of its cost appears to them to be moderate for so large a work; and they believe it is suitable to the site and to the purpose for which the edifice is intended.

Lord Burnham has been compelled to cancel his engagement to speak at the A.A. general meeting on May 28, and Mr. Carl Brummer is unable to be in England to give his address on "Danish Architecture" until the end of the month. The following arrangements have therefore been made:—May 14: "The A.A. Excursion to Holland, September, 1922" (illustration by lantern slides); nomination of officers and council for Session 1923–24. May 30: Mr. Carl Brummer, "Danish Architecture." Election of officers and council for Session 1923–24.

New Books.

"Visual Illusions." By M. Luckeish. London: Constable & Co., Ltd. Price 15s.

The study of optics is, of course, an old one, though the more particular consideration of the scientific exegesis of visual illusions may be regarded as a subject of research of the past thirty years or so, and it is a truly fascinating study. Mr. Luckeish himself has taken a notable part in promoting such research.

But there is one point to which the author does not draw attention, which he might advisedly have done, and that is, that the method whereby, say, the Greeks corrected the bad results of optical illusions was in itself dependent upon a further optical illusion; the use of entasis and thickessing of angle columns and the use of scamilli impares were only successful in correcting an *apparent* respective insucking of shafts, thinning of diameters and sagging of steps by means of the optical illusion that such corrections did not exist.

With the great bulk of Mr. Luckeish's text we may unhesitatingly agree. If we say that various of the suggested illusions are not necessarily illusory, it proves nothing as regards the multitude, or against the accuracy of the author's contentions. But it would be of interest to know what possible proportions of red, green and blue would, under any circumstances, other than possibly spectrum (and we have doubts as to that), produce white; they might gradually produce a light grey.

An illusion to which attention might well be drawn is that created when one is in a moving train and passing a stationary train, when the effect is often produced of one's own train being stationary whilst the other is in motion.

An interesting chapter upon camouflage concludes a very attractive treatise; on page 226, near the bottom, the word "conclusion" is a misprint for "confusion." There are also some useful notes, earlier in the book, about mirages. One chapter is devoted specifically to Painting and Decoration, and another to Architecture.

"Structural Design in Theory and Practice." By Henry Adams, M.Inst.C.E., M.I.Mech.E., F.S.I., F.R.San.I., F.S.Arc., etc. Second Edition. London: Constable & Co., Ltd. 10s. 6d. net.

This book, the product of a highly trained and profound mind, cannot fail to be of the utmost value, not only to the student, but to the practising engineer and architect, since the subjects therein dealt with are placed before the reader in such a form that a study of any part of the book, either of its text or its abundant illustrations, becomes alike a pleasure and an instruction. The reputation of the author as a professor of engineering and as a copious and informative writer on engineering subjects is such as to command the fullest respect for his published works, which are invariably characterised by an obvious mastery of the various subjects with which he deals, and in no respect is such mastery of technical detail more fully exemplified than it is in the pages of this book, which contains a wealth of information so presented as to be readily assimilable.

"The Administration of the Town Planning Duties of Local Authorities"; a Supplement to "The Case for Town Planning." By Henry R. Aldridge, Secretary, National Housing and Town Planning Council. London: The National Housing and Town Planning Council, 41 Russell Square, W.C.1. 8s. 6d. net.

This work will prove of great value to members and officials of such local authorities as are now engaged in Town Planning proceedings, as well as to those authorities who are contemplating such proceedings, since it forms a complete guide to all the steps necessary to be taken in this connection, and Mr. Aldridge (whose name is well and honourably known in connection with housing and town planning propaganda) has in this book made a further valuable contribution to the literature dealing with this important subject. The chapter dealing with the procedure to be followed in the preparation of a town planning scheme is very informative, and will be of the utmost value to those whose duty it is to inaugurate and carry on town planning proceedings. It also serves to show that, although by the passing of the Acts of 1919 town planning procedure has been simplified, there is still abundant scope for further drastic simplification of procedure, and it is certain that unless and until the necessary procedure is very much simplified many local authorities will fight shy of embarking upon a town planning scheme. It is equally certain that at the present time the object in view is being defeated owing to the cumbersome procedure required to be observed under existing regulations.

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Messrs. Higgs and Hill.

Messrs. Higgs & Hill, Ltd., are prominent in the present state of building activity in London. Among the numerous works they now have in hand may be mentioned Messrs. Harvey Nichols & Co.'s extension at Knightsbridge, which is being carried out under Messrs. Williams & Cox, architects; Tudor House, Little Argyll Street, and Great Marlborough Street, for Messrs. Liberty, under Messrs. E. T. & E. S. Hall, architects; and the Regent Street premises of Messrs. Liberty, illustrated in this issue and now under construction. Messrs. Higgs & Hill are also carrying out Messrs. Spillers' new premises, St. Mary Axe, under Sir Edwin T. Cooper, and Upper Fielde, a block of flats for Messrs. Wimperis & Simpson, architects. Every architect knows what an immense advantage it is when a firm of the standing of Messrs. Higgs & Hill are carrying out their client's work, which doubtless explains the number of contracts they usually have in hand.

A "Relay" Automatic Telephone Installation.

Britannic House, the head office of the Anglo-Persian Oil Company (the design of which, by Sir Edwin L. Lutyens, R.A., we publish this week) will, when completed, be installed with an inter-departmental telephone system of the most modern type, which will, we understand, be the largest private automatic telephone exchange in London.

The apparatus is being manufactured and will be installed by the Relay Automatic Telephone Co., Ltd., of Marconi House, and will be an exchange of 240 lines capable of extension to 500 lines at any time without disturbing the existing service.

The "Relay" system requires the running of only two wires in lead-covered cables, which is a great improvement on the multi-cables required in the old-fashioned inter-communication systems.

The essential value of the "Relay" system lies in the speed with which it effects its connections, in its reliability, and in its secret service. Its efficient automatic principle, which eliminates the human operator and ensures prompt and correct connections, recommends it for this form of inter-departmental communication.

"Tennisite" Hard Courts.

Among the many games now being played none is more popular than tennis, and in order to carry on the game through the winter months a good hard court is a necessity to all clubs.

With "Rubble" hard courts there is always the need of stocking an unsightly heap of spare material, and in windy weather dust quickly arises if the courts are not watered and rolled continuously. This necessitates an additional yearly cost for materials, water and labour.

These disadvantages can be avoided by adopting "Tennisite" hard courts, of a cement basis (non-magnesite), laid by the British Magnesite Flooring Co., of "City House," 158-160 City Road, London, E.C.1. The courts are laid in plastic form, with inlaid white lines, on foundations prepared by local labour.

"Tennisite," owing to its solid, porous nature, can be played on within a few minutes of a heavy downpour of rain, will not dust up, or cause any damage to clothes, needs no watering, rolling or labour for maintenance, and, after the initial outlay, is a perpetual source of income to clubs, &c.

"Tennisite" hard courts are finished in green or red colour, as required.

Trade Notes.

Joseph Dixon Crucible Co. announce price reductions on all their graphite specialities (with the exception of paint) on and after May 1, 1923. This is the third price reduction since 1920, and now brings Dixon's specialities down practically to pre-War prices. By buying Dixon's specialities the consumer is ensured of getting the same high quality that has characterised Dixon's goods for nearly a century.

The Durban (Natal) Municipality have just placed a large order for cast iron pipes with Messrs. The Staveley Coal and Iron Co., also large orders for steel pipes with Messrs. Stewarts & Lloyds. The representative engineers to the Corporation are Messrs. W. H. Radford & Son, of Nottingham.

The Earl of Crawford has accepted the invitation of the Council of the London Society to be the second President of the Society in succession to the late Lord Plymouth. The exhibition of a model and drawings for the new road bridge at Charing Cross (in place of the existing railway bridge), which was arranged by the London Society recently first at the old County Hall, and then in the Art Gallery of the Corporation at the Guildhall, has been removed to the Holborn Town Hall.

General.

Plans for four bungalows proposed to be erected by the Mayor of Oswestry were rejected by the local Town Council on Monday last owing chiefly to lack of height.

A dancing salon, estimated to cost from £15,000 to £20,000, is to be erected in West Derby Road, Liverpool. The plans have been approved by the corporation.

Mr. T. R. Milburn, F.R.I.B.A., has been re-elected President for the ensuing year of the Sunderland Photographic Association for the thirty-first year in succession.

Mr. George H. N. Trew, O.B.E., M.I.C.E., A.R.I.B.A., deputy Civil Engineer-in-Chief to the Admiralty, died on May 5, and was buried at South Petherton, Somerset, on Thursday.

The Leyland & Birmingham Rubber Co., Ltd., are laying 16,000 square yards of their rubber flooring at Britannic House, Finsbury Circus—the new premises of the Anglo-Persian Oil Co., designed by Sir Edwin L. Lutyens, R.A.

Mr. Jack Jones, M.P., last week, addressed at Swansea a conference of representatives of the building trade and said that the best way out of the recent difficulty was for the workmen's representatives to agree to arbitration.

Hythe Town Council have received 120 applications for the post of borough surveyor at a salary of £450 per annum. As the present surveyor leaves at once the Mayor, Councillor E. Osborne, has undertaken to carry out the duties until the new man arrives in a month's time.

At Edinburgh Dean of Guild Court on the 3rd inst. 58 applications were dealt with. This was the largest number which had been before the Court for a considerable time. Thirty-five of the applications were full petitions, and the remainder for minor alterations. Of the full petitions 28 were granted.

Sir James Jebusa Shannon, R.A., of Holland Park Avenue, W., the eminent painter, for several years president of the Society of Portrait Painters, and one of the original members of the New English Art Club, who died on March 6, aged 61, has left property of the value of £21,162, with net personalty £18,299.

Mr. F. C. Keene, chief buildings inspector, in his annual report to the Bournemouth Town Council, states that during the year there had been a great increase in the number of plans for new houses, &c., passed by the Town Council. The approximate value of new buildings approved amounted to £683,380, as against £416,546 in 1922.

In view of the very great interest taken in the exhibition of Mr. William Walcot's drawings, "Some Great Temples of Antiquity" and "Roman Compositions," at the R.I.B.A. Galleries, arrangements have been made to keep it open until further notice. The general public are admitted free from 10 a.m. to 6 p.m. (Saturdays 10 a.m. to 1 p.m.).

Lord Riddell is prepared to erect a number of cottages in the village of Walton Heath. The Reigate Rural District Council, considering a letter from the agents, have instructed the Clerk to reply that it would be prepared to assist in every way within its power. Lord Riddell has a large scheme on hand for providing cottagers with suitable dwellings, as the local authority has failed to meet the demand.

The West Hartlepool Town Council have had plans prepared for the construction of a sea wall 1,600 ft. long, at an average distance of 90 ft. from the cliff. A 25 ft. footpath the length of the wall is provided for, together with a reinforced concrete shelter to accommodate 1,500 people, and a bathing pool 200 ft. by 100 ft. The estimated cost of the promenade is £35,400, the bathing pool and facilities £2,900, and the shelter, etc., £3,000.

Plans were submitted at Glasgow Dean of Guild Court on the 3rd inst. for work estimated to cost about £70,000. Of this amount £25,000 is represented by proposed alterations and additions to the premises in Blythswood Square of the Royal Scottish Automobile Club. The Corporation propose to erect shops in connection with the Drumoyne housing scheme, costing about £3,000 and a boathouse at Glasgow Green (£5,000), and Paisley Presbytery are to erect a temporary church at Mosspark, where one of the Glasgow Corporation housing schemes is being carried out.

Lord E. Percy, Parliamentary Secretary, Board of Education, asked by a Labour Member as to what extent the cost of building materials decreased after the withdrawal of the housing subsidy in 1921, and what percentage it had again increased since the introduction of the new Housing Bill, said: Although a limit was put upon the assisted schemes in 1921, construction continued under the private builders' subsidy scheme until June, 1922, and the whole of the houses under the local authorities' assisted scheme are not yet completed. The decrease in the cost of materials as required for the construction of a working-class house in the London area between July, 1921, and April, 1923, was about 42 per cent. There is no evidence of any average increase of price since the introduction of the new Housing Bill.

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The Via Media.

It seems to us that it would be a great advantage if architectural opinion could be somewhat more defined and formed on the vexed question of the extent to which we should regard the work which has come down to us as being sacred and to be secured in perpetuity as it is.

Were the buildings of the past exhibits in a museum there would be no question as to the manner in which they should be dealt with, but in most cases they are used for a more or less useful purpose and serve the activities of our daily lives. In the centuries which are past no sentiment prevented our forefathers from pulling down or altering buildings which had come down to them or completely altering their character by later additions. The public were what we should describe as vandals in this respect, but we usually either preserve our old buildings with what is almost a superstitious reverence or arrive at the conclusion that they must be swept away to make room for modern improvements to meet different conditions of life. We believe that the greatest of all means of preservation is to adopt and use, and that we should consider no building as too precious to be freely altered or added to in order to bring it into keeping with modern requirements. Were this done we believe the generations which will follow us would actually possess a greater heritage than they are likely to do. We are full of regret when we think of the great list of interesting buildings which London has lost within the last three-quarters of a century, many of them buildings which could well have been preserved if they had been regarded as the nucleus of buildings required in the present. The great survey undertaken by the London County Council would be, if completed, of inestimable value in showing us in every district the treasures which are still left and which should, if possible, be preserved, but the immense research and minute investigation required before the volumes of the survey can be issued will make the process a long one, although the volumes dealing with Chelsea, Hammersmith and St. Giles-in-the-Fields show how rich London is in interesting old work. In the City the difficulties of the position are very much accentuated by the enormous value of land, but here, too, demolition in the past has often been unnecessarily complete and drastic in its character. The Drapers' Company were in the middle of last century in possession of a Hall and other rooms which contained fine detail of woodwork which were ruthlessly sacrificed to make room for the present Hall, when the woodwork and other fittings could have been re-used in altering or rebuilding the Hall. The Barbers' Company have lost some of their finest buildings, which ought to have been retained or worked into a newer structure, and the Carpenters' Company preserved very meagre traces of their earlier buildings. But it was clearly impossible to leave the tangle of old buildings and gardens which stretched between Throgmorton Street and London Wall, but the pity was that the process of change was so ruthless and so regardless of the value of the associations connected with earlier buildings occupying the site. We have what is a parallel case to-day in the Adelphi site, which clearly cannot, in the interests of the owners, remain what it is to-day. Demolition is bound to come, but it should be demolition accompanied by the determination to maintain the character of an interesting corner of London, and as far as possible to actually work into the design of new building some of the existing portions of the Adam work replaced.

One school of architects would say that if it be necessary to demolish and rebuild all must, if we are sincere, be new and in keeping with the spirit of the age, but we think a very clear line can be drawn between buildings which it is right and reasonable to erect in situations to which no traditions attach and buildings which may be made interesting as a link between past and present.

The case of the City Churches occurs to us, and in thinking of what has been done in the past we must, to be fair to the "vandals" of the past, allow that some of the demolished churches, notably that of St. Christopher Stocks, stood in positions which rendered their retention well nigh impossible. Much demolition is inevitable, a case being that of a building which stands in the axial line of a new street necessary for traffic, but, as we see in the Croydon Corporation's proposals about the Whitgift Hospital, many proposals are clearly unnecessary and should be strenuously resisted.

But wherever we can use an interesting old building for some useful purpose of to-day we have given it a new lease of life, and if to fit it for its altered purpose it is necessary to alter it such alteration should be done frankly and completely.

If the outcries raised when some old building is to be demolished are analysed, it will almost always be found that those who propose such demolition have a direct pecuniary interest in what is proposed, and that those who object can lose nothing. This should, to our mind, produce a more charitable and understanding frame of mind on the part of the objectors, whose task should be not only a critical one, but constructive in trying to indicate a manner in which both objects could be met.

We should be glad if the whole subject could be fully discussed and if the Council of the Institute, as representing the profession, would make an authoritative pronouncement on the subject. As it is, architects are divided into rival camps, and the destruction of interesting buildings goes on apace with occasional outcries, often of an unreasonable nature, in support of the retention of buildings which might with reason be sacrificed. An additional reason why we should not be chary of making our own addition to old buildings is that much of the work of to-day is as good as that of any past epoch and will, as judged by future standards, be considered to be as interesting.

Our Illustrations.

NEW OBSTETRIC HOSPITAL AND RESIDENTS' QUARTERS, UNIVERSITY COLLEGE HOSPITAL.—ROCKEFELLER GIFT.
George Hornblower, Architect.
DESIGN FOR COUNTRY HOUSE IN THE SCOTTISH HIGHLANDS.—J. Graham Fairley, Architect.
ST. JAMES'S PICTURE THEATRE.—J. Stanley Beard, Architect.

DESIGN FOR COUNTRY HOUSE IN THE SCOTTISH HIGHLANDS.

J. Graham Fairley, Architect.

The front of the plan is taken as placed facing nearly south on an unrestricted site, with the receding side elevations expanding towards the north, in slight eschelon form to obtain some exposure to a southern light in rooms on both east and west sides.

The principal entrance door is placed on the east side and the public rooms are grouped round a top-lighted and side-lighted central hall.

In the billiard room the floor at the table is made 1 ft. lower than the general floor level, thus giving an extra foot to the height of the ceiling, giving more window light to the top of the billiard table, and permitting the sitting space of the billiard room floor to be on the general floor level.

The smoking room is separated from the billiard room by a glazed partition, with communicating door.

The drawing room, reception room, and boudoir completes the south frontage.

Opposite to the reception room across the gallery is the dining room, facing west, almost square in plan, suitable for varied arrangement of tables.

While the butler's pantry communicates direct with the dining room, there is a private corridor from the pantry or kitchen to the morning room or library, and leading also to the invalid's bed room and business room, on the east side.

The kitchen, offices and servants' rooms are grouped round the inner courts, to the north and west.

Two staircases give access to bedroom floors by means of gallery corridors on three sides of hall, and the floors of these corridors are 1 foot or 1 foot 6 inches below general bedroom floor level, so that the gallery may not appear as high from the hall floor as it would otherwise do if it were on the same level as bedroom floors.

There is a private bath room to about each set of two bedrooms, and the w.c.s in connection are all separate, with light and ventilation direct from the outside. To each w.c. there is also further communication with the outside by ventilation shafts in the walls, with inlets under the ground floor joists, and having an outlet above roofs, each closet would have a separate shaft and gratings which may be permanently left open, thus allowing for a possible constant current of air when w.c. doors are closed.

The estimated cost is about £9,000.

ST. JAMES'S PICTURE THEATRE.

J. Stanley Beard, Architect.

The St. James's Picture Theatre has been erected on the site of the eighteenth century St. Peter's Chapel of Ease in Palace Street. The excavations for the foundations brought to light the fact that the chapel stood on reclaimed land, the walls being supported on an ingenious raft of timber baulks resting on a quagmire. In order to retain as much as possible of the chapel structure its walls were underpinned and a wide concrete foundation laid down. A new fire-resisting steel roof has been constructed. The old vaults have been utilised for the purpose of a tea lounge. Some six feet below the vaults two Roman bricks, red and beautifully burnt, were unearthed. A piece of pottery, black-glazed on both sides, possibly a portion of a cup, was also brought to light.

The external treatment of the new theatre is in the Georgian manner.

The general interior design is light Classic, with a Greek feeling. On the ground floor the auditorium has a seating capacity of about 550. The balcony will accommodate about 300.

The main charm of the whole theatre rests in the colour scheme which has been carried out in a completely harmonious manner—dove-grey walls with turquoise blue draperies, softened down by the architect's special amber lighting. Mr. Stanley Beard will win unstinted praise in respect to the whole interior colour scheme and decorations.

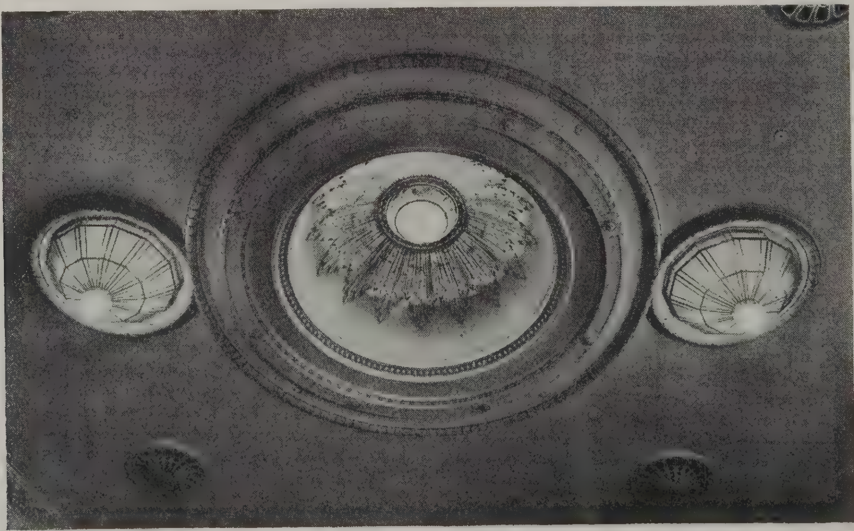
A very fine art metal screen decorates what at some future date will be the organ loft; this screen is the work of Messrs. Starkie Gardner & Co., who are well known for many fine examples of wrought-iron gates throughout the country.

The ventilating and heating is on the Plenum system, installed by the Buffalo Forge Co., Ltd., the air being drawn into a chamber and heated or cooled as the weather conditions demand. In taking our photographs to illustrate this theatre flashlight powder was used, and it was noticeable that by means of the ventilating plant the smoke was extracted in a remarkably short space of time, demonstrating most effectively the efficiency of the installation.

The electric light fittings are supplied by Messrs. Gillham & Jones, and include a number of alabaster vases in Classic style; the light from these latter radiates in a soft, warm colour in keeping with the architect's general decorations. Both partners of this business were associated for a number of years with Mr. F. Geere Howard, A.M.I.C.E., of Berners Street, W., who established a reputation for taste and fine craftsmanship.

Messrs. F. & H. F. Higgs, Ltd., Station Works, Hinton Road, Herne Hill, S.E., were the general contractors.

The following is the list of principal sub-contractors in addition to those mentioned above:—Constructional engineers, Aston Construction Co., Eagle Wharf Road, N.; exterior façades, Gilbert Seale & Son, 22 Lomond Grove, S.E.; decorative plaster work and French stucco, A. Searle & Co., Putney Bridge Station, S.W.; electric lighting, Furse & Co., 9 Carteret Street, Westminster; electrical generators and projectors and seating, Walturdaw Co., Ltd., 46 Gerrard Street, W.; furnishing and draperies, H. Lazarus & Sons, 10a Great Eastern Street, E.C.; decorative metal work, Strode & Co., 48 Osnaburgh Street, N.W.; vacuum cleaning plant, Sturtevant Engineering Co., Ltd., 147 Queen Victoria Street, E.C.; marble floors, Carter & Co., 29 Albert Embankment, S.E.



THE CENTRAL AMBER LIGHT, ST. JAMES'S PICTURE THEATRE.
J. Stanley Beard, Architect.

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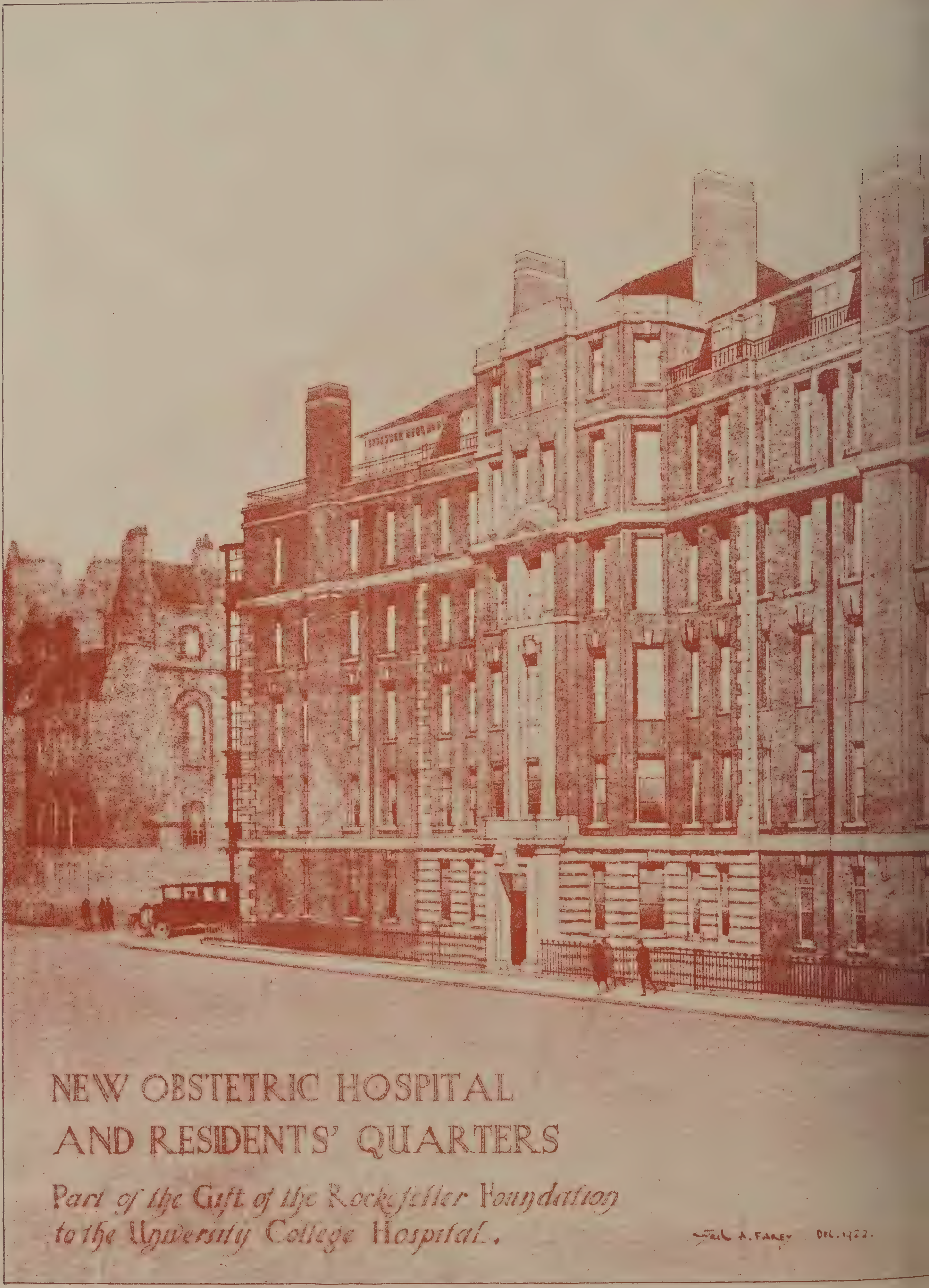
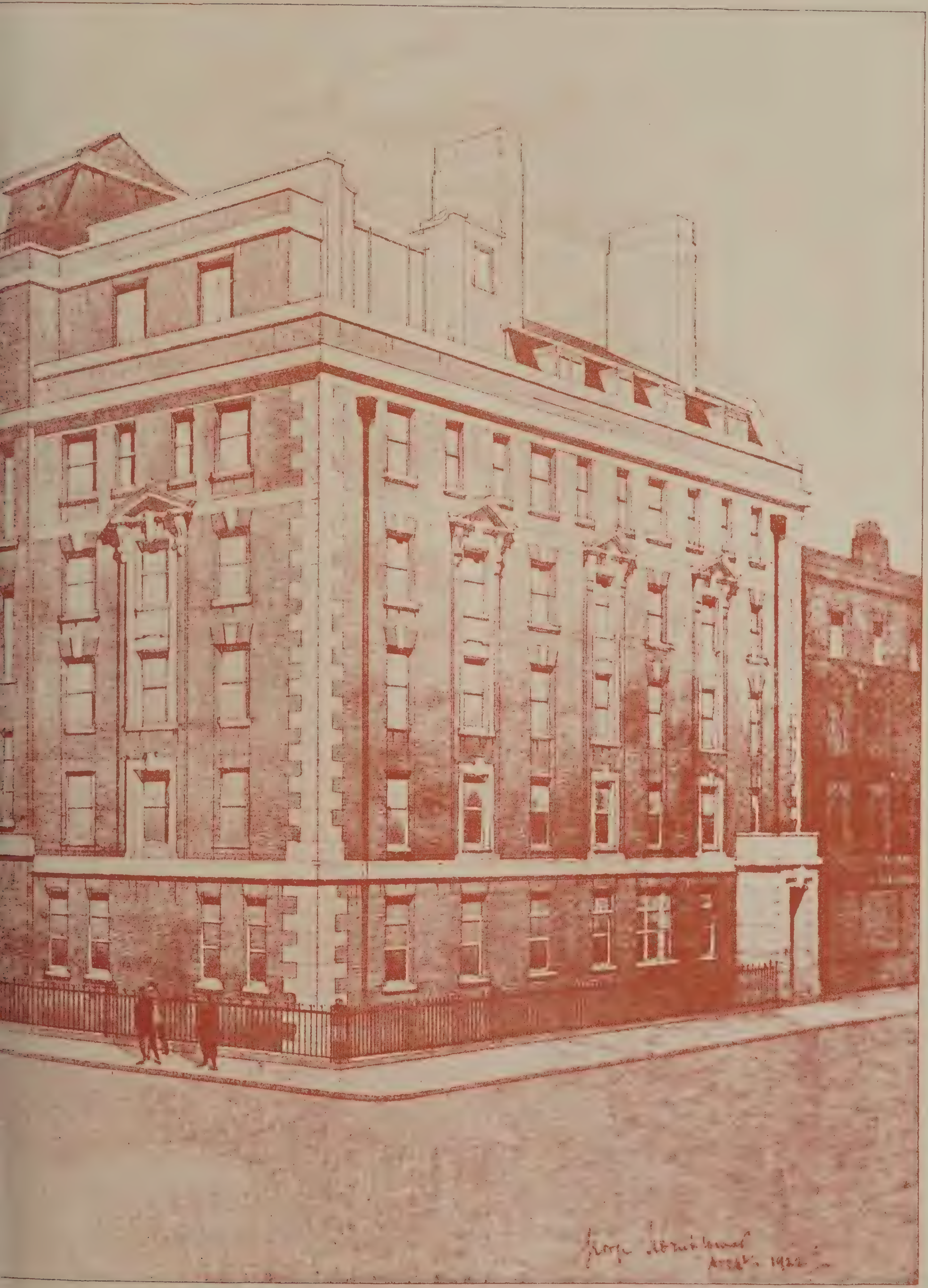

NEW OBSTETRIC HOSPITAL
AND RESIDENTS' QUARTERS
Part of the Gift of the Rockefeller Foundation
to the University College Hospital.
Cyril A. Farey Del. 1922.

NEW OBSTETRIC HOS
GEORGE



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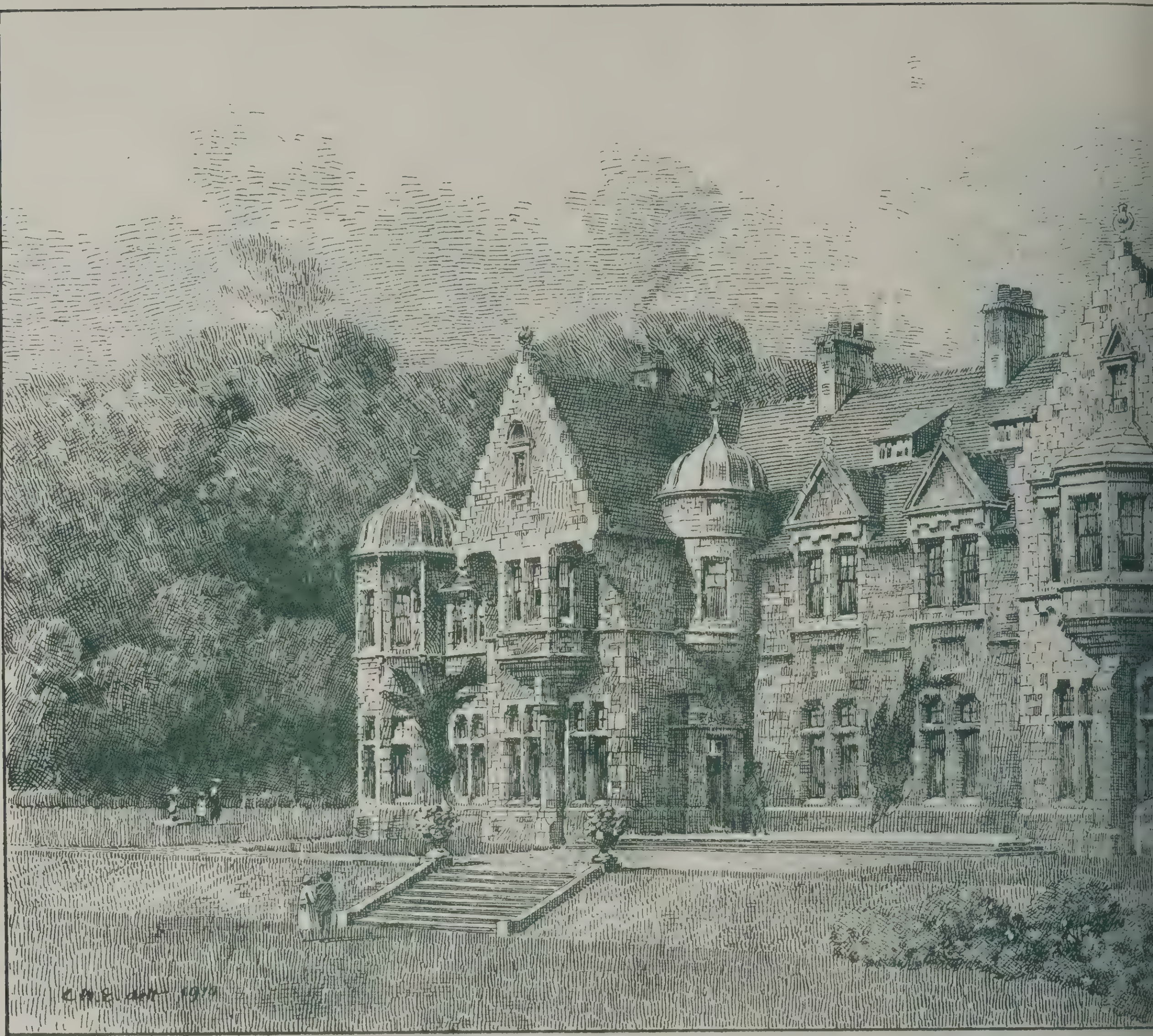
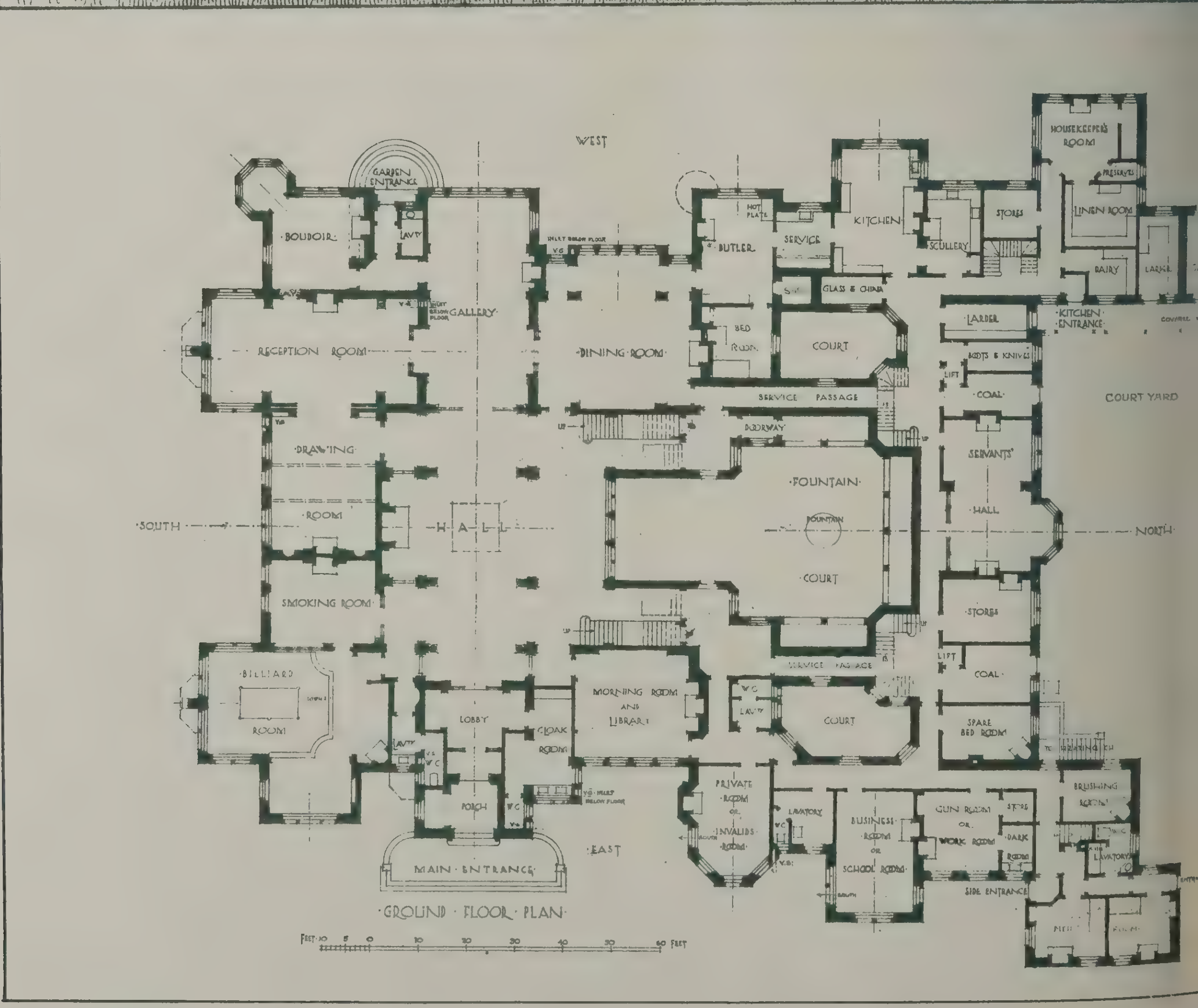
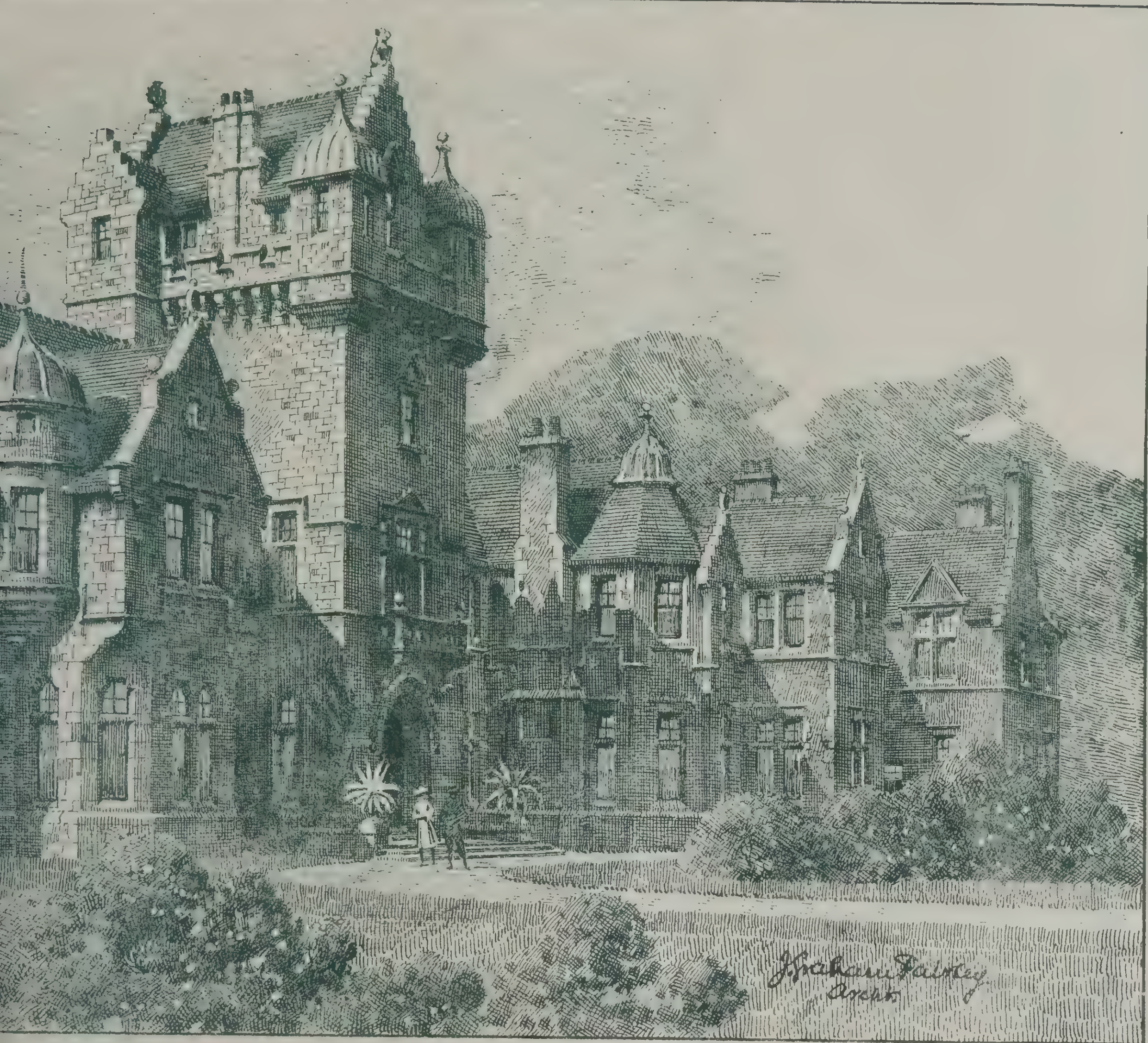
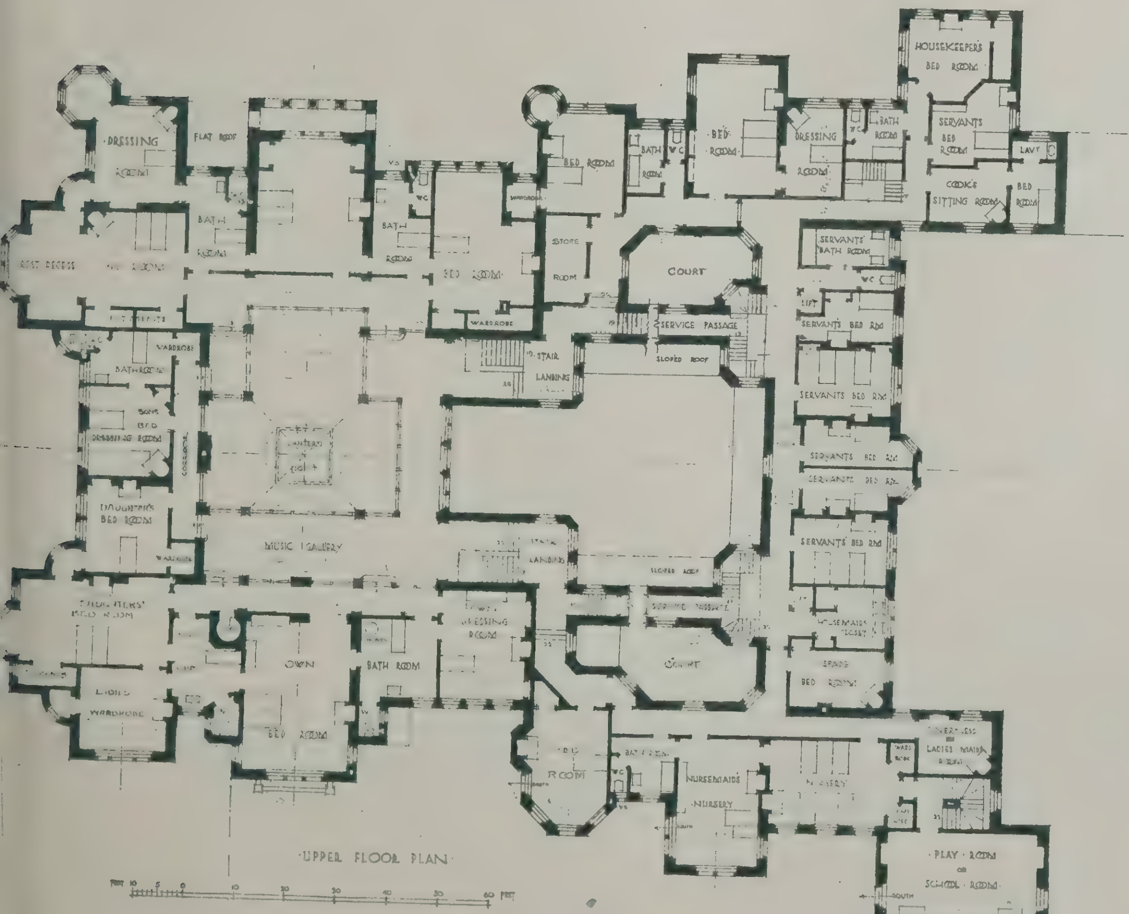




DESIGN FOR A MODERN COUNT





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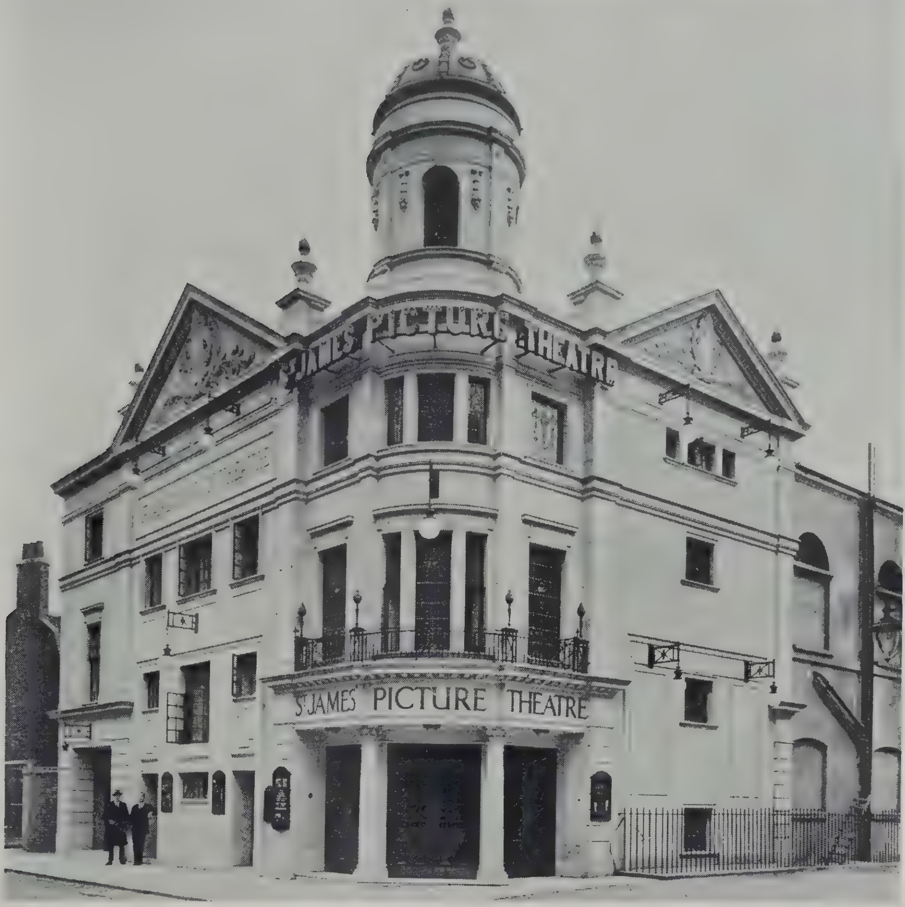
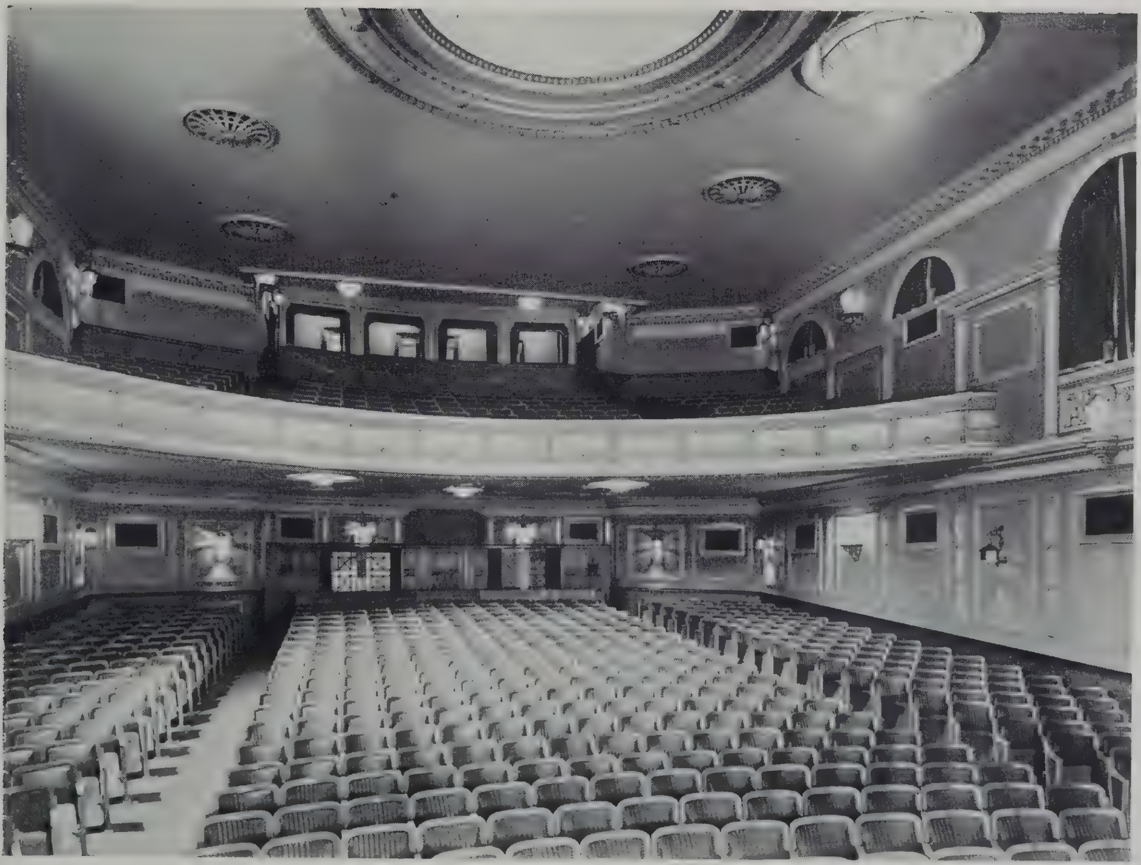
THE SCOTTISH HIGHLANDS.



VIEW OF EXTERIOR.



VIEW OF AUDITORIUM FROM THE STAGE.

ST. JAMES' PICTURE THEATRE, BUCKINGHAM PALACE ROAD, S.W.

STANLEY BEARD, ARCHITECT.

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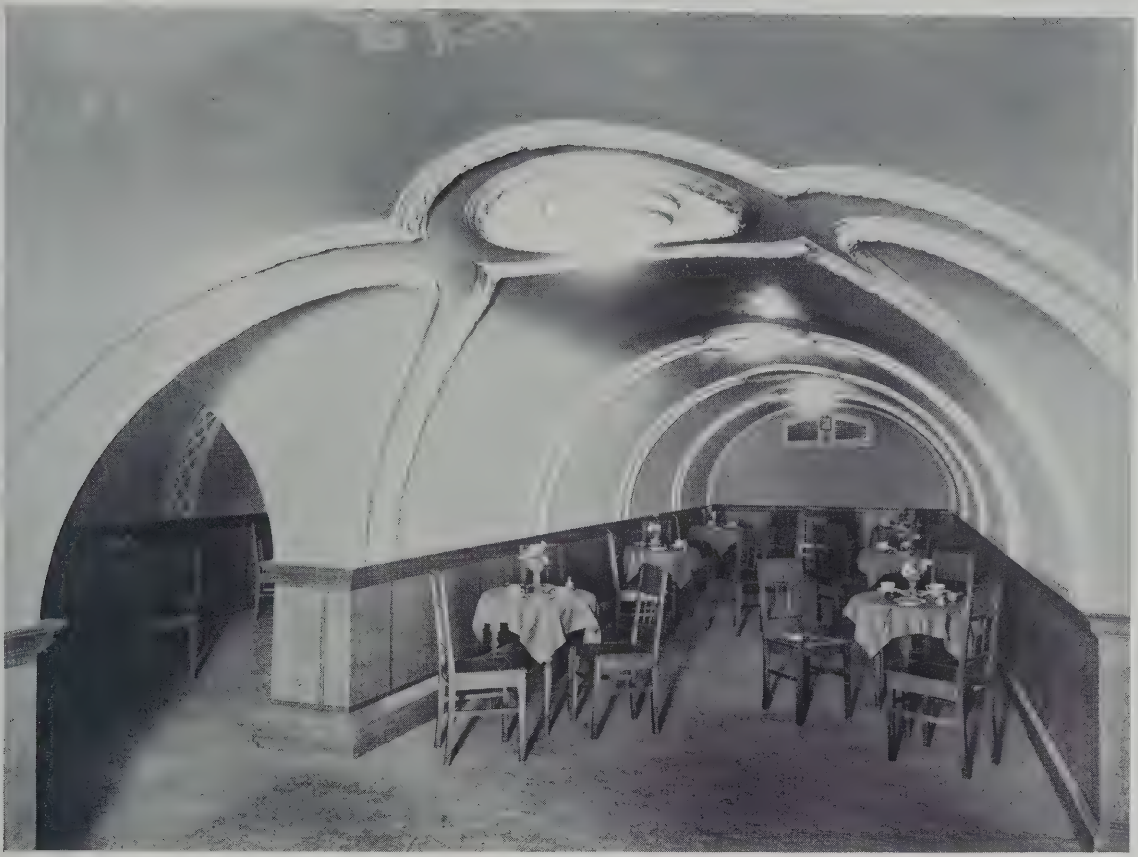
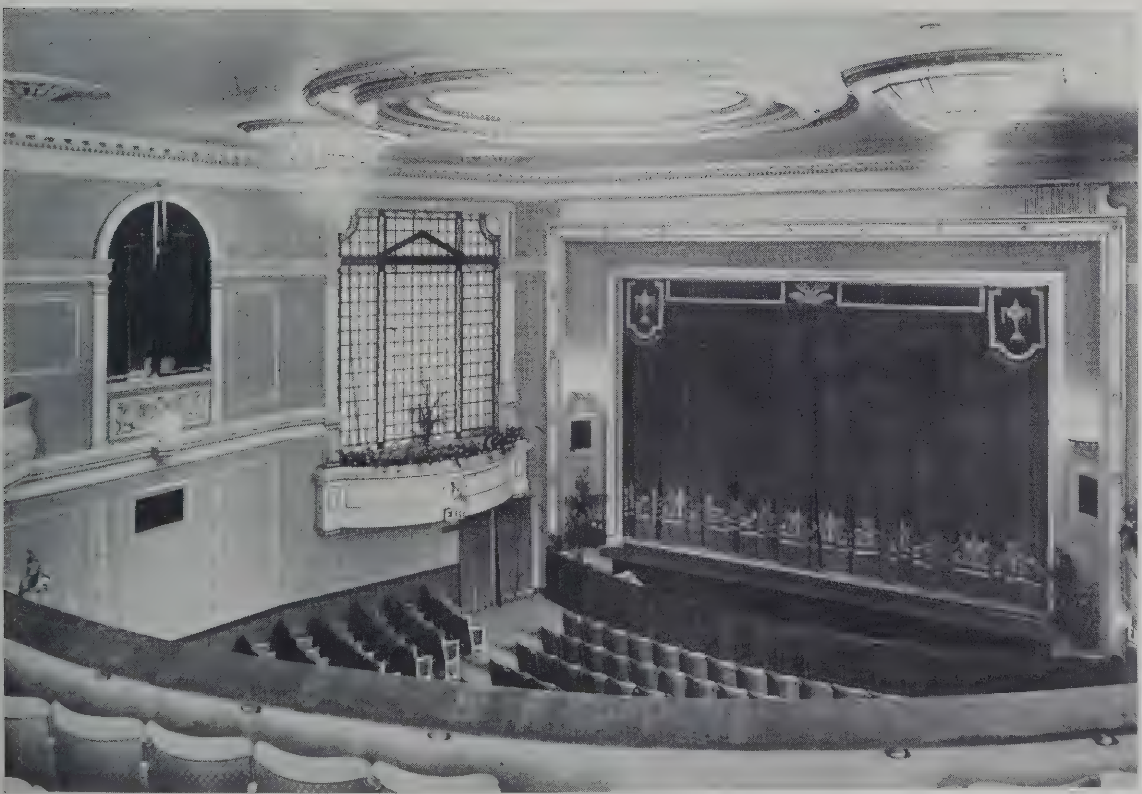


RESTAURANT.



VIEW FROM THE GALLERY TOWARDS THE STAGE.

ST. JAMES' PICTURE THEATRE BUCKINGHAM PALACE ROAD, S.W.
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Sculpture at the Royal Academy.

Since the days when the great stone-carvers of the fourteenth century decorated the early English cathedrals, and a little later were produced the wonderful series of bronze effigies, there has been little or no original sculpture in Britain.

When the Italian Renaissance swept across Europe destroying Gothic art, there was sown in France the seed of that æsthetic taste which, if it did nothing more useful, eventually produced the technical excellence of the modern French school.

While music, painting, literature, the drama, in fact all the arts with the exception of the plastic, have had at some time a British school, supreme at least in so far as its own characteristics were concerned, with a firmly established niche in the world's art, sculpture alone is without a tradition, without support.

But the problem before the sculptor is really no more complicated than that which confronts the painter, for it is obviously no more difficult to give animation to the solid rock than to create the illusion of life on a flat surface. There must be something in the nature of the British temperament which precludes participation in the plastic sense. And when to England there has come at last the inspired message of Epstein, the Royal Academy knows not Jacob and heeds it not, and the so-called "new movement" runs like water off the roof of Burlington House, while its interior remains as dry and as cold as in the days of Prince Albert.

In common justice, however, to this year's committee, there must be recorded a very surprising and very distinct weakening of that resistive attitude, resulting in the unexpected admission of several quite "advanced" pieces. Of these, perhaps, the most notable are the Chinese-like bronze, "The Moon," by Mrs. Phyllis Clay, and a portrait of unusual character by Mr. E. Schilsky, both, of course, confined with the other "moderns" in Room XI. Also *dans le mouvement*, and strangely out of place amongst the well-behaved, typically English busts of the Lecture Room, the very remarkable group, "The New Age," by Mr. Allan Howes.

But before further consideration of these there is the goodly company of war memorials to be dealt with.

First, then, to the greatest—the huge model of a monument to be erected in Newcastle-upon-Tyne, "The Response, 1914," with its half-a-hundred figures, larger than life and weighty with clay. What can be said of it beyond the remark that in proportion to its colossal size it has singularly little effect, and little enough indeed of artistic significance or conception? As it stands it fails, largely because the soldiers with their complete actuality behave precisely as soldiers, uncontrolled by any æsthetic motive or convention, and to the onlooker—like the primrose by the river's brim—they are soldiers to him and nothing more—and the intention, the basic idea, remains unexpressed. And of all the other models of soldiers, in various attitudes? That for the most part they aim at doing nothing-more-artistically-intelligent than merely imitate reality.

And when comparison is made with the monuments produced in France after the Franco-Prussian war, and since —the works of Dalou, Barrias, Falguière, Longepied, of Aubé in his great "Gambetta," of the American St. Gaudens, and of the Belgian Meunier whose monumental figures if not actually memorial, were of similar inspiration, we realise how much British art loses in such comparison—and in the absence of such tradition.

Even if we assume in England sufficient intensity of æsthetic emotion to inspire original conception, is there not still lacking the rhythmic impulse for its truly sculpturesque expression; or the purely plastic technique to give distinction to its execution?

How persistently there creeps into English sculpture an almost childish delight in the wonders of verisimilitude!

But not all this year's designs are of merely representational character, and there is much simple dignity and beauty—if of a somewhat Leightonesque order—in the nude figure of a youth by Sir Bertram Mackennal, expressing the Eton ideal of self-surrender. Even here, expression is derived rather from emotion based on actuality, than from any abstract creative impulse. Dealing with the same subject and very similar in treatment, though less searchingly modelled, is a bronze nude by Mrs. Hilton Young, of a youth not unlike Mackennal's, with arms extended, head thrown back in ecstasy of "Offering." Prominent also are the "Sir Galahad" of Mr. Alfred Turner, for the Victoria College, Jersey; models by Mr. Reynolds-Stephens, Mr. Stanley Furner, Mr. Walter Marsden, Mr. Lindsey Clark for "The Cameronians," and, dedicated to the blinded soldiers of St. Dunstan's, a fancifully designed group, "The Sacrifice," by Mr. Richard Garbe. But the majority of the memorials have little distinction, though not a few are of considerable bulk and importance.

Two life-size marble effigies, however, attract attention, one in particular calls for special comment both by virtue of its subject and its unusually sculpturesque manner—that of Lord Kitchener, by Mr. Reid Dick. Noticeably fine in adherence to the strict limitations imposed by the design, it is destined for a place of honour in the Memorial Chapel, St. Paul's Cathedral.

Of the many portrait busts ranged around the Lecture Room, shoulder to shoulder, few show great dissimilarity one from another, and they differ little one year from another—and if their creators are prepared to continue the list year after year, the public at least grows weary of identification. Only a few hours ago the proverbial sweet young thing, losing patience suddenly, voiced a rather general opinion: "All these old men's heads? Hateful!" Thus, in a word, was expressed what had apparently escaped the artist—the futility of mere verisimilitude.

But all are not hateful, and those of least interest, if they do nothing else, provide a background from which others—few certainly, but still one or two—stand out with increased clarity. Among so much that is dull, like the crack of a whip comes the strange, ungainly, but intensely personal group (already referred to), "The New Age," by Mr. Allan Howes. In this little allegory, fascinating in its novelty, are semi-nude figures: Woman, man, and on his shoulder the child, set diagonally one behind the other—the woman significantly first. While somewhat marred by its obvious *grotesquerie*, there is much talent in this work, and the name Howes will be watched with interest.

No less talented and quite unspoiled by eccentricity of any kind, in the rank and file of busts is to be found a portrait which in characterisation, in the use of material to convey personality, in the grasp and perception of essentials is far and away the best thing in the room, in many respects perhaps the most interesting exhibit in the whole show. It is "Herbert Marks," by Eric Schilsky, and it well repays inspection.

H. A. C.

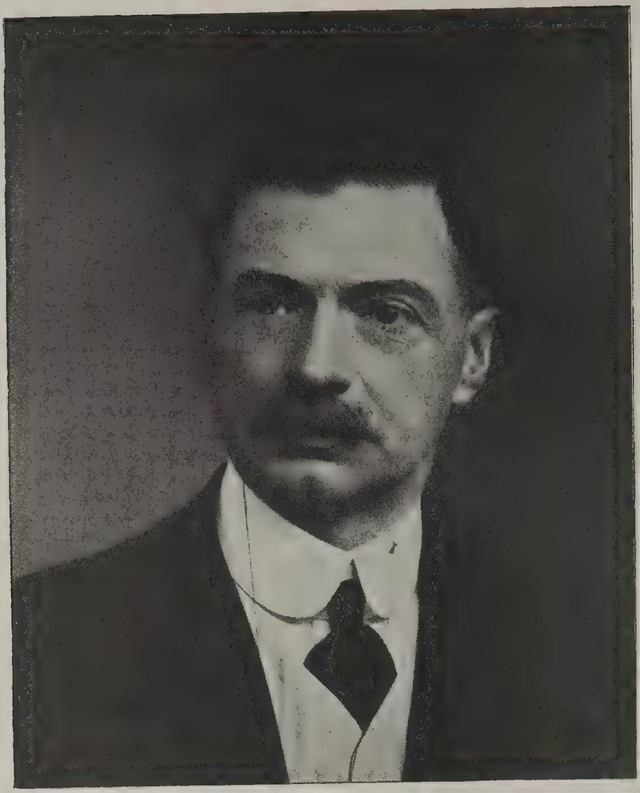
Stonework Deterioration.

The question of the deterioration of stonework in buildings is a matter of general economic importance. But in the cases of our historic buildings and ancient monuments prevention of the serious decay and gradual demolition of tooled surfaces and main structures constitutes a special problem which has engaged the attention of many investigators for a considerable time without, however, finding any generally satisfactory solution.

Accordingly, it has been decided to set up under the Department of Scientific and Industrial Research a special committee of the Buildings Research Board to report on the best methods by which decay in building stones, especially in ancient structures, may be prevented or arrested.

The Chairman of the Committee will be Sir Aston Webb, K.C.V.O., P.R.A., and the other members will be Mr. R. J. Allison, C.B.E., F.R.I.B.A., Professor C. H. Desch, F.R.S., Mr. A. W. Heasman, O.B.E., Mr. J. A. Howe, O.B.E., Sir Herbert Jackson, K.B.E., F.R.S., Dr. Alexander Scott, F.R.S., Mr. H. O. Weller, M.I.C.E., Hon. A.R.I.B.A.

All communications should be addressed to the Secretary, Department of Scientific and Industrial Research, 16 Old Queen Street, London, S.W.1.



A. W. S. CROSS, M.A. [*Photo Elliott & Fry.*

Alfred William Stephens Cross, M.A. Cantab.

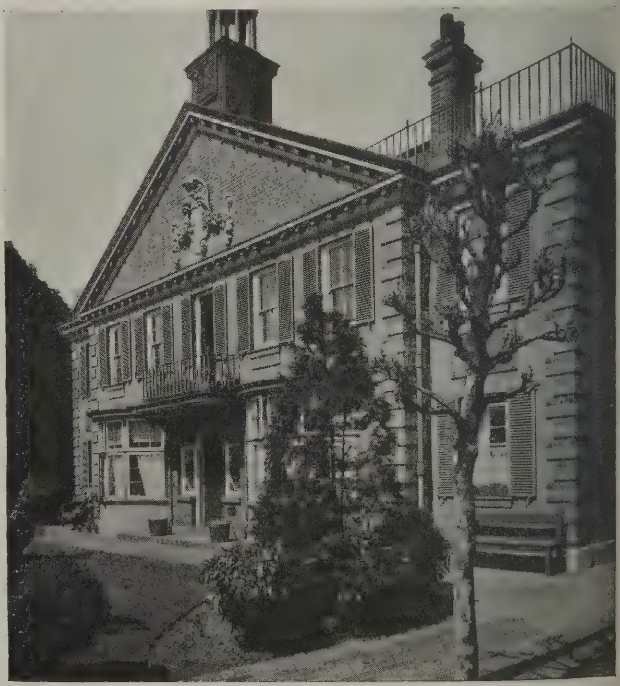
Nominated by the Council of the R.I.B.A. as President.

Had Cross been a man of fewer sterling qualities his election would have been uncontested. As it is he has to fight for a position which should have been his by consent. Unswerving integrity and transparent honesty are characteristics in a man which may sometimes make his fellows uncomfortable and those who possess them are often described as being abrupt and wanting in tact, but no one who knows Cross has ever had the least hesitation as to the attitude he would take up in a public matter of importance, and no one has ever appealed to him in a good cause in vain. He has throughout sought what he considered to be the common good for his colleagues, and has preserved the keenness and enthusiasms of youth at an age when many have lost them.

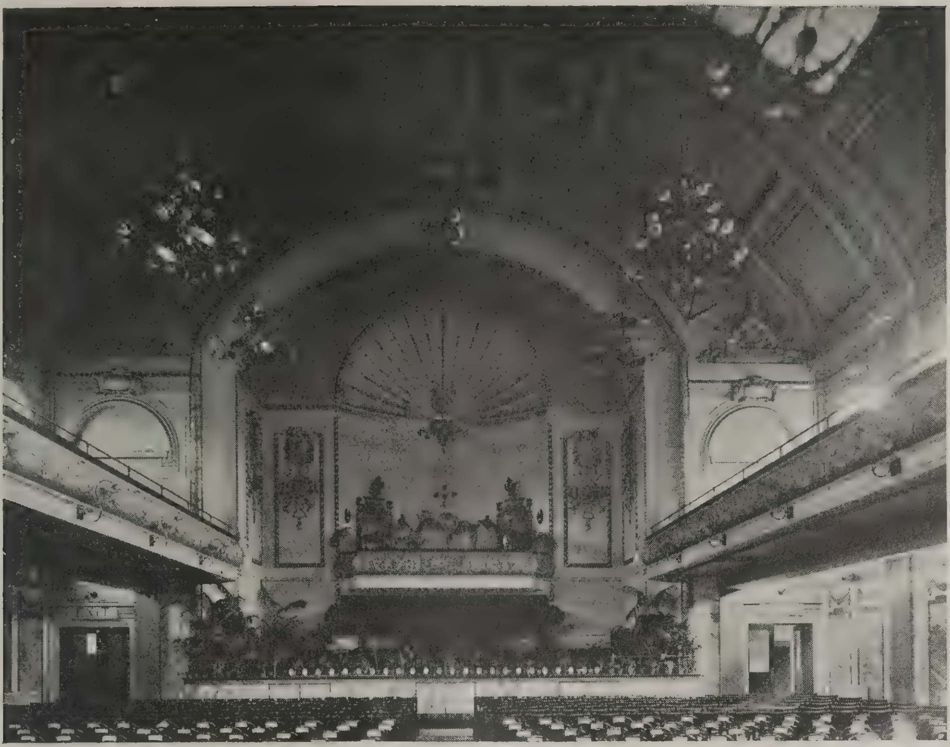
His friends feel the present to be a time in which they can show their faith in a good comrade and friend, and whether he succeeds or fails he will carry with him the absolute confidence and affection of all who know him. We feel in backing him we are supporting a " white man," and we know that if he loses the Institute will suffer more than he will, for it will lose the services of one who would prove to be one of the best Presidents it has had in its history.

What Cross stands for may be very briefly summarised. Firstly, to defeat the movement to enlarge the Institute by weakening the standard of attainment for its members and to promote a Registration Bill; and second, to do all that can be done to make the Institute a free democracy of qualified architects in which all members shall receive equal justice and consideration. It is known that he would favour a self-denying ordinance by which the members of the R.I.B.A. Council were *ipso facto* excluded from taking Institute appointments during their term of office. Such a step may or may not be practicable, but there are few doubts that it has much to recommend it. Cross is also in favour of the reform of competitions by the institution of a Court of Appeal, a reform which has been long needed, and for the use of the poll on controversial matters, a step which would enable every member to have an equal voice on important issues.

As an architect, Cross has had a long and varied experience. He was articled to his father, Alfred Cross, architect, of Hastings and London, passed the qualifying examination for the Associateship in 1883, then he commenced practice in Hastings, but soon afterwards opened an office in Weston-super-Mare, where he designed and carried out vicarages and other works, and restored and enlarged several churches in the diocese of Bath and Wells. In 1889 he joined the late Henry Spalding, F.R.I.B.A., of 15 Queen Street, Cheapside, and during the course of the following ten years the firm took part in many competitions, of which they won over 25. The following buildings were among the work carried out under the firm :—The Municipal



WOOD GREEN ALMSHOUSES. A. W. S. Cross, Architect.



SHOREDITCH TOWN HALL. A. W. S. Cross, Architect.

School of Technology, Manchester; three large blocks of artisans' dwellings, Oldham Road and Pollard Street, Manchester; Public Baths at Dulwich, Camberwell, Hampstead, Wandsworth, Walthamstow, Hoxton, and St. James', Westminster; churches and church schools at Harlesden and West Hampstead; working men's clubs at Hampstead, Walworth and Croydon, in addition to numerous houses at Hampstead and the Headquarters of the 17th North Middlesex Rifle Volunteers. The above work was mostly carried out in the free Renaissance in vogue at that time, but Cross had ambitions to work in a more restrained and traditional vein, and his later designs, by which he is best known and on the merit of which he has achieved his architectural reputation, show a marked spirit of restraint and an intimate knowledge of the precedents of the later English Renaissance.

Subsequent to the dissolution of partnership with Henry Spalding his chief works have included the Davies Memorial Laboratories for the Aberystwith University, Public Baths at Haggerston and Finchley, Merchant Venturers' Technical College, Bristol, a Technical Institute and Free Library at Gosport, the Shoreditch Trustees' Almshouses, Wood Green, the restoration of the Town Hall, Shoreditch (partially destroyed by fire), additions to the Infirmary, Shoreditch, and numerous houses at Bexhill and St. Mary Bourne, Cheam, Abingdon, Boxmoor, Byfleet and elsewhere, additions to Clumber Church for the Duke of Northumberland, and the Restoration of Radnige Church, Bucks. In conjunction with his son, Mr. Kenneth Cross, he has carried out Baths for St. John's College, Cambridge.

Cross has frequently acted as assessor in competitions and has conducted many arbitrations in cases of building disputes.

He has written books on Public Baths and Washhouses, a History of Architecture, treatises on Rome in the Augustan Age, and in conjunction with Mr. A. E. Munby and his son a Series I. and II. of Practical Hints for Architectural draughtsmen. Cross has an intimate knowledge of the conditions of both London and provincial practice, of the special difficulties of which he is fully aware, and of a very wide number of types of different buildings.

He has been a member of Council of the R.I.B.A., and has served as one of its Vice-Presidents for ten years, while his support of Statutory Registration is well known to all of us.

We hope the electorate will—as we think it should—support both Cross and the cause he has at heart. If it fails to do so we believe that the triumph of the so-called unification candidates will lead not to the unification of the profession but to secessions from the Institute, and probably to the formation of another Architectural Society, founded to maintain the principles which the Institute will have abandoned. The Council elected in 1921 brought forward the political issue out of which the present position has arisen. They and not we have provoked controversy, and it is they who have broken the unwritten law and opposed the election of the Council's selection for the Presidency, a selection justified irrespective of the views held by Cross, by his eminence as an architect, his services to the Institute, and by the fact that all of us know that he can be trusted to maintain the dignity and honour of the position.

Notes and Comments.

How Socialists would Run Industry.

The I.L.P. have sent us a pamphlet under the above heading which is written by Mr. Malcolm Sparkes and which sets out to show up the weaknesses of the present industrial system in which enterprises are run for the profits which accrue from them. We think Mr. Sparkes, like many of his comrades, confuses cause and effect and falls foul of accurate definitions. He claims that enterprises of the guild nature are not run for profits, but we claim that they are to exactly the same extent as any private enterprise, but with this difference, that instead of the profits being partly divided between those who put down the capital, a larger proportion of them go towards wages than is common in capitalistic enterprises. This is good for the worker as far as it goes, that is to say, if the guild can raise money from those who are content with little or no interest they have obviously an advantage over ordinary forms of enterprise. But the difficulties experienced by the guilds show that it is hard to obtain money on such terms and the want of capital is crippling the efforts of the guilds. Moreover, even their spokesmen admit that they have to put aside part of the profits obtained to increase the scope of their activities and to add to and renew their plant, and this is the direction in which a large part of the profits obtained in successful capitalistic enterprise are expended. It has been stated, we believe with entire truth, that were this not so and were profits really mainly expended in luxury, as is sometimes alleged, the existing order in the world would have come to an end long ago; but in reality a large part of the money earned by capital is set aside to create more employment or, in plain words, is really devoted to the service of the community.

A View of Art.

Lord Bathurst, in speaking at the annual dinner of the Faculty of Arts at the Hotel Cecil, complained that the magic letters M.F.H. had been omitted from his name and stated that he was more competent to speak on a sporting lecture than one touching art. Yet he would make a few observations, one of which was that "the artist of to-day is rather inclined to over-value his production and ask for too much money for his work." Would it not be better, he said, "to turn out five or six pictures at 5 or 10 guineas, rather than one at 200 guineas which did not sell?" We quite admit that if a man has to earn money he would be better employed in producing potboilers which sold than masterpieces which did not, but in the first place painters who ask large sums for pictures usually do so because they can get them, and in the second, Lord Bathurst hardly allows for the fact that the painting of any picture involves the difficult art of composition whether it is slight or elaborate, big or small, and that the art of composition is a wearing and strenuous one. The painter of many small pictures has a brain-wearing task before him and he is more likely to achieve success if he can limit his efforts to a smaller number of acts of composition and that to do so he must necessarily ask more adequate prices than those Lord Bathurst mentioned. To this, as in other things, there must be a golden mean arrived at by the exercise of common sense.

The Advertisements Regulating Act Amendment.

We are glad that an amending Bill has been introduced to stiffen the Advertisements Regulation Act of 1907 and has been read for a second time in the House of Lords. We feel that the most important question is not the regulation of advertisements themselves but that of the positions in which they may be displayed. If this be so legislation should, as in the case of temporary buildings, aim at giving or withholding permission to erect hoardings on which advertisements may be displayed and of making it necessary to have the design of such hoardings approved by the local authority for a limited term of months or of years—just as a temporary building is approved. Coupled with this it would be of service if all displayed advertisements could be taxed according to the superficial area covered by them. This would tend to prevent the occurrence of the monster advertisements which destroy the scale of everything near them, while we should get rid of the tin cows and other monstrosities which disturb our sense of fitness when we are approaching London and other of our towns by rail.

The Site of the Globe Playhouse.

Mr. George Hubbard has issued a little treatise on the site of the Globe Playhouse, which has been published by the Cambridge University Press at a price of 7s. 6d. We wish that a great fortune depended on the issue instead of the disputed position of the site of an Elizabethan building, for in that case Mr. Hubbard would win fame from one end of the country to the other by the admirable manner in which he has settled a controversy. The London County Council have placed themselves in a most awkward position by asserting that the Globe Theatre stood on the south side of Park Street (formerly Maid or Maiden Lane), instead of the north side of that thoroughfare, and with having actually fixed a tablet on part of Barclay & Perkins Brewery, asserting that the Globe stood there.

Mr. Hubbard's chain of irrefutable proof begins with the citation of part of what is termed the "Osteler Document," which deals with claims made in respect to shares claimed in the Globe and Blackfriars Theatres. In the documents connected with this case the size and position of the Globe site with its dimensions is stated, as well as the position of the boundaries in relation to the cardinal points, a clear statement being made to the effect that the site was bounded by the Park on the north and by Maiden Lane on the south. The original lease to Shakespeare and others was dated 1599, and the Osteler Document 1616. Confusion seems to have arisen, because the site was described as being bounded by the Park on the north side, and the Bishop of Winchester's Park was on the south side of Maiden Lane, but Mr. Hubbard shows that the latter is elsewhere described under its full title in other documents and that the land between the Globe site and Parkside was described as the Park. More than this, Mr. Hubbard is able to show that the actual boundaries of the site as described in the deeds coincide with the boundaries of existing properties. The County Council's case is that through some unaccountable error, the cardinal points mentioned in the Osteler document have all been reversed, a conclusion which Mr. Hubbard readily shows as being absurd, since he is able by reference to a long series of contemporary maps to show that the Globe Theatre was always represented as occupying the site of the Bear Baiting Ring, which formerly stood to the east of the Bull Baiting Ring, and on the position he describes.

The writer is also able to show that it would be most improbable, on account of the difficulties of access presented by ditches and other obstacles, that the southern site could have been chosen as that for a theatre, the approach to which would have been from the north.

We have never read so complete and convincing a description of a most difficult piece of investigation. A part only of the treatise is all that is required to bring conviction, but Mr. Hubbard has preferred to prove a theory as absolutely as Euclid ever proved one of his propositions.

Professor Reilly.

Professor Reilly, speaking at the Luncheon Club at Manchester, stated that much of our recent town architecture was marred by trying to be country architecture. We should have doubted whether there is much truth in such a statement to-day. Messrs. Liberty's half-timbered warehouse behind Regent Street will occur to our minds, but this is, we believe, an exceptional freak, for which the employers are answerable. We do not often see so modern a work a tangle of picturesque gables or attempts of half timber in our streets, nor do we often get modern examples of country houses amidst town surroundings; indeed we should have been inclined to say the prevailing tendency was in the contrary direction and that the modern town house tended more universally to assume an appearance of some symmetry and formality. We admit there are exceptions, owing to the caprice of architects or of owners, but the world would be a very much duller place if we all acted logically and did exactly what we ought to do, and we should lose if we never indulged in caprices.

A Correction.

In our issue of May 4 we erroneously stated that Mr. Hind's book on Giovanni Battista Piranesi was published by the Cotswold Gallery at 31s. 6d. The price is 63s. net.

Two Entrance Exhibitions to the London University School of Architecture, University College, of the value of £40 each may be awarded in June. One is open to graduates of a British University or some other University approved by the Selecting Committee; the other is open to candidates who pass before September next the matriculation examination of the University of London, or some other examination accepted in its stead. Applications must reach the Secretary of University College, Gower Street, W.C., before May 30.

Sir Christopher Wren.*

The volume published under the auspices of the Institute to commemorate the bicentenary of Wren's death forms an attractive and interesting tribute, and the proceeds of the sale of the book are to be devoted to the preservation fund at St. Paul's.

The form adopted—that of a number of separate essays on different phases of Wren's work—is doubtless the one best fitted to show the interest taken by a profession in its greatest English exponent, and one which will appeal to the imagination of many. No book by a single author could quite fill the need of the moment—that of an architectural act of homage. On the other hand, many architectural writers could in the compass of such a book as is before us have included material which would have given a completer idea of Wren and of his works. The limitation of an essay is a severe and exacting one, for only the most skilled of writers with great literary experience can in a comparatively short paper reach a climax of interest such as will remain photographically in the mind of a reader, while a lesser amount of ability will enable a man to write a satisfactory book. For this reason neither the short story nor the essay have been great favourites with English writers, and for this reason many of our professional addresses fail. In saying this, we are only emphasizing our sense of the difficulties confronted by the various contributors to the present volume, difficulties which have, on the whole, been very worthily met, but those who have to express themselves briefly on a subject with which they are well acquainted suffer under great handicaps.

The task is rendered even more difficult by the scarcity of references which tell us much of Wren as a man. He is more like a mental force which worked independently of its surroundings, living in a world of its own with infrequent and passing communications with mankind. A man who lived through the troublous Stuart and early Georgian eras without being involved in the political troubles of the time, who could remain on friendly terms with Cromwell's son-in-law when his uncle was imprisoned by the Government of the day, had a quality of aloofness of mind which separates him from the generality of mankind. Had Wren, like Pepys, left a Diary, it would have probably been in the form of notes of matters engaging his immediate attention, not an intimate human document dealing with people. This aloofness of mind undoubtedly left its stamp on Wren's architecture, rendering it less imbued with the characteristics of the age than that of many of his successors. We are nearer to Wren than to Vanbrugh and Hawksmoor because their works could only have belonged to a brief period, while Wren's have an appeal for all time.

Sir Aston Webb writes an admirable introduction to the volume, in which he says that the career of Wren "may make us pause and consider whether a scamper over the Continent and a superficial knowledge of the various modes of building abroad are necessary accomplishments for an architect building mainly in England"—a thought which often finds expression by Sir Aston, whose affection for his own country and belief in it is such a strongly marked characteristic. Mr. Gotch gives a sketch of Wren as a man from the scanty sidelights we have, but the task is like an attempt to recreate a figure from the shadows cast by dim and uncertain lights. Mr. Keen and Professor Beresford Pite both suffer a little from their reluctance to employ the weapons of intellectual criticism.

The best sections of the book, both from a literary and critical standpoint, seem to us to be that contributed by Mr. Lawrence Turner and Mr. W. H. Ward on the Crafts of St. Paul's, because they deal with their subject at somewhat greater length, while their section is more fully descriptive. Professor Richardson also has contributed a brilliantly and clearly written section on Wren's Public Buildings. His great knowledge and freedom from fear allows him to tell us what he really thinks of Wren's work—a task which some of the other writers have perhaps avoided. Mr. W. H. Ward again is at his best in writing of the French and Italian influences on Wren's work and on their effect on the design of St. Paul's.

But, as we have said, the writers of the various sections of the book have had a most difficult task. One can study the life and work of a great architect, but in writing of a special aspect of that work the writer almost inevitably knows too much or too little, nor are the lines which define the various sections of activities sharply and clearly marked out.

It is unlikely that Wren himself knew whether he was influenced by what he knew of foreign work or not, and entirely unlikely that he made any conscious effort to preserve English characteristics in his work. He was evidently completely absorbed in the immediate problems which confronted him, and solved his problems by efforts of thought, doubtless assisted by impressions which all he had seen or studied made on him. Great imagination in his as in other cases probably made him independent of the constant effort to recall detail which strains and harasses lesser men insecurely groping along the path they would follow.

The book is exceedingly well produced and illustrated, and reflects the greatest credit on those who have compiled it and on the care and skill employed by Mr. Dircks, than whom no better editor could have been selected, and to whom we owe the very marked improvements made in the R.I.B.A. "Journal."

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* "Wren Bicentenary Memorial Volume." Published under the auspices of the R.I.B.A. Hodder & Stoughton, Ltd. Subscribers' Edition, £5 5s.; Edition de Luxe, £8 8s. Special Edition at £26 5s. (in preparation).

Competition News.

Architects who are Subscribing Members of a Masonic Lodge in the Province of Warwickshire and who desire to compete are to apply by letter to the Temple Secretary, Wor. Bro. J. P. P. Dutfield, 65 Temple Row, Birmingham, for the conditions of competition for a new Temple. The assessor is Sir Banister F. Fletcher, F.R.I.B.A., F.S.I., who approves the proposed site in Broad Street, Birmingham.

The Corporation of Hull invite competitive designs for a new art gallery in Queen Victoria Square, and have appointed as assessor, Mr. J. W. Simpson, P.P.R.I.B.A. Applications for particulars of the competition must be addressed to Mr. H. A. Learoyd, town clerk, Guildhall, Hull, accompanied by a cheque for £2 2s., which sum will be returned to all applicants who submit a bona-fide design, or who return the particulars in good condition within one month from the date of their application. Designs must be delivered by November 5.

Trades Training Schools.

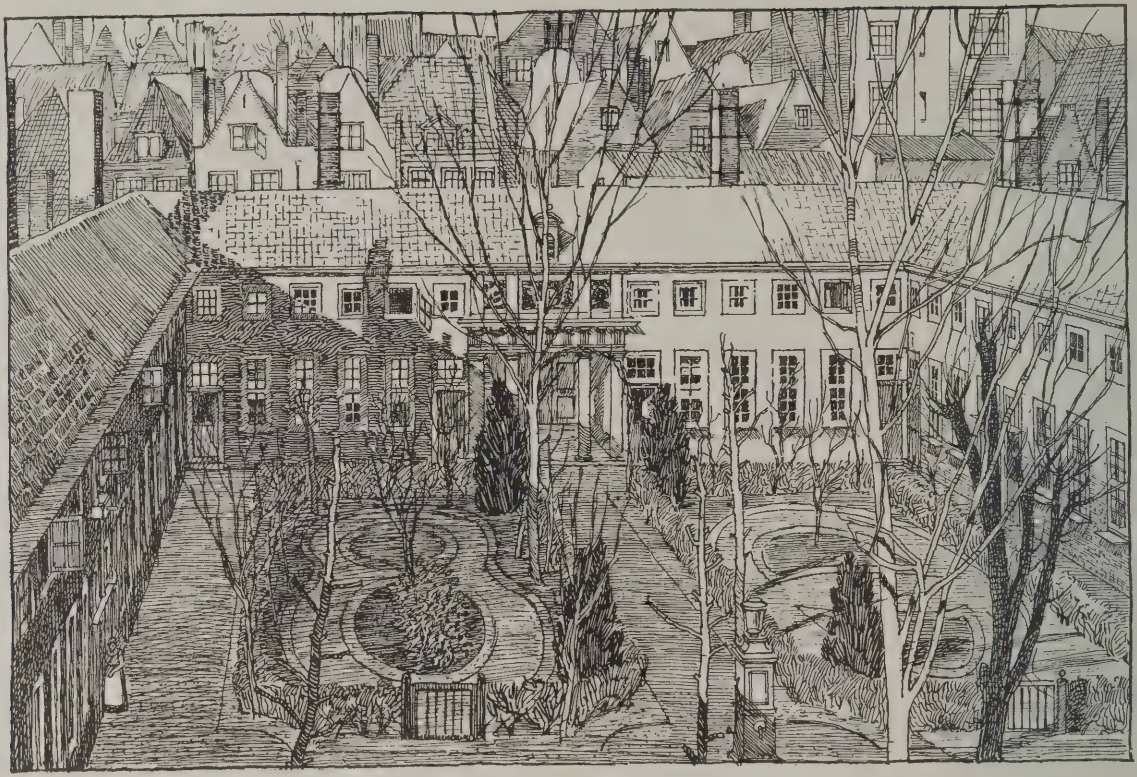
The Judging of Exhibits of Students' Work for the session 1922-23 took place at the Trades Training Schools of the Worshipful Company of Carpenters and Associated City Companies, 153 Great Titchfield Street, W.1, on Thursday, the 10th inst. Mr. Charles Denny, the Master of the Worshipful Company of Carpenters, presided over the meeting, and the Chairman of the Schools Committee, Mr. Frederick Sutton, J.P., attended, as did also the gentlemen appointed to judge the work, including Sir George Frampton, R.A., Sir Goscombe John, R.A., and Messrs. E. Guy Dawber, F.R.I.B.A., Arthur Keen, F.R.I.B.A., and H. D. Searles-Wood, F.R.I.B.A.

The judges formed the opinion that there was a distinct improvement in the exhibits in number and quality over the work of the previous session. The Carpenters', Joiners', Electricians', Masons', Stone Carvers' and Wood Carvers' Classes and the Life Class, all under the control of the Carpenters' Company, have turned out excellent work. The Plumbers' Class, in particular (now under the auspices of the Worshipful Company of Pewterers) had a large number of exhibits, while the classes under the control of the Worshipful Companies of Armourers and Brasiers, Glaziers, Tylers and Bricklayers, Plaisterers, Painter-Stainers, and Wheelwrights each produced work which called forth high commendations from the judges.

The prizes awarded by the judges will be distributed at Carpenters' Hall in the early part of next session, after the schools reopen on September 24.

An Exhibition of the work was held at the Schools on the 11th inst., when the livery of the Associated City Companies and their friends and representatives of the Press were shown over the Schools by the Director, Sir Banister Fletcher, F.R.I.B.A.

A London firm of builders have acquired a big brewery in North Street, Brighton, and propose to convert it into an arcade of good class shops.



OLD HOLLAND. By G. G. Wornum.

Architectural Association.

A meeting of the Architectural Association was held on Monday, May 14, at 34 Bedford Square, W.C., Mr. Stanley Hamp, president, in the chair.

Before calling upon the two lecturers, the President said he had very great pleasure in mentioning that they had with them Mr. and Mrs. Jan de Méyer, both of whom had been so kind to the members last year in Holland.

The subject for the evening was

The Holland Excursion, 1922.

Mr. F. R. Yerbury opened the proceedings with a series of remarkably fine lantern slides, chiefly from his own photographs of the old buildings of Rotterdam, Amsterdam, Delft, Utrecht, Volendam, Edam, Alkmaar, and other places visited during the week of sightseeing. These views are to be published later in book form. The number of slides being considerable, Mr. Yerbury contented himself with making brief explanatory comments on such points as the colour aspects, the multitudinous variety of gables, the whitewashed interiors of cathedrals, the external cranes for raising furniture, the really attractive museums, the marble-lined basements, the authenticity of Volendam, the hospitality of the inhabitants, and the "Dutchness" of everything they saw.

Mr. T. Laurence Dale then followed with an illustrated account of the modern movement in Holland, with particular reference to housing schemes carried out under the general direction of Mr. Arie Keppler, the Director of Housing, Amsterdam.

Modern Dutch architecture was, he said, certainly out of the ordinary, and the measure of its departure from the normal was the measure of the difficulty one felt in placing it. It appeared to the speaker that a curious interchange of position had taken place between this country and the Dutch. Much that we find the Dutch developing was originated by Mr. Voysey and the "New Art" school and was killed by the excesses of Vienna. We have cast it far away from us in our movement towards the Queen Anne and the Georgian, which are, in turn, so very largely Dutch in origin. Both nations are developing modes that the other had abandoned. A point of considerable interest is the speculation as to which country has got hold of the right end of the stick.

Mankind is divided into two camps by some spiritual division, although a few manage to sit on the fence not ungracefully. These two parties are distinguished by Nietzsche under the description of the Dionysians and the Apollonians: the followers of Dionysius and of Apollo. Apollo, the spirit of perfection and conservation; Dionysos, the spirit of destruction and construction. It need hardly be mentioned that Nietzsche himself was of the latter party. His influence, which seems to have permeated the whole of the Continent, scarcely affected these sea-protected shores. Hence the real difficulty in England in appreciating the mental outlook of Russian democracy or of other revolutionary movements, of which modern Dutch architecture seems akin and which may be regarded as definitely Dionysian by reason of its defiance of tradition and love of adventure, its destructive and constructive impetus; and the measure of one's appreciation will be the measure of one's spiritual sympathy.

There did not seem to be any cause to regard this movement with consternation and alarm as subversive to morality; nor was it fair to view it merely as frivolous and irresponsible. He himself, said the lecturer, was infected by it with a sense of emancipation, a delightful feeling that the field of architecture was, after all, not exhausted and barren but still virgin and unexplored. If progress is to be made, it was important we should face the future with hope and in the spirit of adventure. There was no reason to be unduly impressed or depressed by the interesting fact brought forward not long ago by a distinguished architect that we were sufficiently near the age of Julius Cæsar to be content to expend our energies on modifications of the Corinthian Order. Nor was there cause to hold, as was also suggested, that probably English architecture was as near perfection to-day as it had ever been. One need not, of course, be unduly self-critical, but for anyone who felt a lurking dissatisfaction with much being done in this country it was well to consider the work of the contemporary Dutch architects with sympathy, giving them credit for the sanity of their attack and seeing if one cannot profit by their labours.

Any really extensive building scheme embracing whole streets offers an ideal opportunity for departure from convention. Isolated departures from the normal suffer inevitably from an appearance of freakishness, being apt to jar unpleasantly with their more conventional-neighbours and are consequently seen at a disadvantage. The same unconventional elements, however, carried over a sufficient area keep each other in countenance and create a new convention; so that the strangest forms under these conditions appear quite in the nature of events and what one would expect.

One of the points definitely to the credit of the latest Dutch housing schemes was that a new world has been created in which the strangest things happen quite naturally. In some cases it is a world of sheer delight of which Hans Andersen himself might have been the architect. Homely, quaint, picturesque, fantastic, but missing that nauseating sentimental view of the architectural picturesque—such work seems a pure artistic achievement which leaves us in no mood to cavil.

The astonishing thing about the whole of it was that it should

OLD HOLLAND. By G. G. Wornum.

ever have happened. The Dutch architects were certainly to be congratulated in carrying the public with them or in over-riding the public and succeeding in being allowed to experiment in such wholesale fashion. One could not help wondering what the Ministry of Health would have said if some of the designs had been submitted to them for approval! Whether the Dutch public wanted these houses or whether Dutch architects made them have them is uncertain. The lecturer said he inclined to the view that firstly the Dutch public was interested in art and then that under sympathetic administration the Dutch flew away with the whole business by the sheer force of their own vision and conviction.

Discussion.

Mr. Jan de Meyer, of Amsterdam, said that never before had he seen such a fine collection of photographs of his own country, and he hoped the proposed book would prove a great success both in England and in Holland. There was, in his opinion, a real affinity between this country and his own—much more so than between Holland and Germany. Personally, he always felt quite at home in England.

Mr. Robert Atkinson expressed his deep admiration for the old Dutch work—it was very different to ours and could give us a lead on many points. So far as the new work was concerned, the logic of it was sometimes quite good. Nevertheless some of it bordered on the product of mentally deficients. To pour the people into the houses after they have been built may possibly be a proper procedure for certain countries, but it was really proceeding too far. Some of the brickwork was exceedingly good.

Mr. Gilbert Jenkins remarked that it was difficult to express adequate thanks for the wonderful hospitality which the Dutch architects and the people showed to the A.A. visitors; from early morn to well on towards midnight they had been feasted and fêted and shown about till they felt almost unwell from the diversity of things seen. What struck him particularly was the wonderful way the Dutch used their brickwork. They appear to have made up their minds to produce a national architecture: they have broken definitely away from the old styles and have not yet found their feet. Probably they will go back a little to the old traditions, and extraordinarily beautiful buildings will be produced. Mr. Yerbury's fine photographs had given a faint impression of what a jolly lot there was to see in Holland and all would look forward to their publication in a book.

Mr. A. Willetts said the Leeds architects had visited Holland before the war. The Dutch doorways were a very fine feature, of which the people were extremely proud. He had been struck by the spirit of revolution, and he hoped it would prove the forerunner of something really grand and noble.

Mr. Stanley Hamp thought the members might like to seize that occasion for thanking Mr. F. R. Yerbury for the extreme amount of trouble he took to organise the A.A. trip last year in such an able way. The most recent of the modern Dutch work seemed to him to possess a restraint and beauty which was not apparent in the earlier. It could only be appreciated by those who had actually seen the buildings. There was a body of architects in Holland who were trying to express something that is worth expressing. The work might by some people be called insane; but at any rate it proved a mind that was not afraid of expressing itself or of being criticised.

The vote of thanks was passed with acclamation.

The Ministry of Health has withheld sanction to the proposed sale of a church site on the Blyth Town Council's Housing Estate as the Council would have no power to recover from the Church authorities the cost of the construction of roads abutting on the church site. The Town Council having approved of the principle that the cost of the construction of the roads be added to the purchase price, the Town Clerk has been empowered to negotiate with the Church Board of Finance on these lines.

MUSIC IN STONE

A PLEA FOR THE SCULPTORS ÆGIS

Scene : The smoking room of a millionaire's mansion. It is full of stuffy upholstery and florid draperies. The walls, decorated with sham perspectives, are hung with mirrors in gilt over-ornamented frames.

Three men are seated round the fire-place : Charles, the millionaire ; Eugenie, an architect ; and John, a sculptor, and brother-in-law to Eugenie. The three have dined well at the millionaire's table. They have come together to discuss the proposed building which Charles is going to have erected from the designs of Eugenie. John and Charles hope at this friendly meeting to get their own way with Eugenie, who has objected to John's doing the sculpture on the proposed building.

Charles : The man who pays the piper calls the tune.

Eugenie : Not in the best of circles. When Wagner's "Parsifal" was about to be produced for the first time, the people in power financially called on Wagner with the startling news that his work was to be altered ; that parts were to be cut out and new movements by another musician inserted. Wagner remonstrated with these people, telling them that this new musician could not and would not play anything in the original conception of the opera.

John : How did Wagner manage to get his own music produced as he wanted it ?

Eugenie : That is not for me to tell. I simply know that this incident happened.

Charles : I don't believe it did happen.

Eugenie : We must believe it did happen or else we are to believe that those German financiers of long ago were wiser, more cultured and more artistic than you are.

Charles : What has that to do with me ?

Eugenie : This. You, a millionaire, come to me, an architect, and ask me to deface my work with John's sculpture. Excuse my frankness, John.

John : Oh, don't mind me.

Charles : It's unfair to compare yourself with Wagner ; his work was music, yours is architecture.

Eugenie : I admit it : my comparison is unfair. It's unfair to myself. Wagner, when his work was spoilt, always had the consolation that at some time in the future he would be able to get it produced as he wanted it. But I, when my work is defaced, have to look upon the ruin of my work as long as I live, without being able to remedy it.

Charles : But, my dear Eugenie, architecture is not music.

Eugenie : Allow me to tell you, my dear Charles, that architecture is music. It's music in stone. Great architecture seen for the first time stirs the inner chords that make the divinest music in our souls, it takes the breath away and keeps us spellbound. When great orchestral music is heard it does the same.

John : That's true enough, Eugenie ; you are right there.

Charles : Still, Eugenie, you have always told me that architecture is a co-operative art dependent upon the freedom of the workers and sculptors.

John : Yes, I must remain free, Eugenie. Architecture is alive only when there is this freedom among the workers and sculptors. The greatest periods of architecture were those in which the guilds reached their zenith. The glory of the cathedrals of the middle ages proves it.

Eugenie : You are both right. The freedom of these workers, however, is like the freedom of the strings of a violin ; they are free to give out the musical theme only when tuned to the right pitch. They are bound at each end, but in their bondage lies their freedom to give out music from the touch of the master-hand.

Charles : Then you, I suppose, are the master-hand.

Eugenie : Exactly ; I am the master-hand.

John : And I am a mere violin string.

Eugenie : Yes, John, you are a violin string. Yet a violin string in an orchestra is unique ; nothing can replace it. So in architecture, without sculptors our buildings would be barren piles of stone.

Charles : Then why can't he do the sculpture on my building ?

Eugenie : He can't do the sculpture on our building because he is not tuned to the right pitch for the master-hand. Excuse my frankness, John.

John : Oh, don't mind me. I'm only a bit of cat's gut.

Eugenie : I won't. But I'll give you a little history. The great architects of the middle ages were carvers, masons, sculptors and master-masons—the three are really one. In mediæval work there is no definite line between the carver and the sculptor ; ornament merges into sculpture, figure-work merges into foliage. An architect of those days was simply the sculptor of a work of huge dimensions. He shaped, with many hands, out of stone a huge building. He began life by simply laying stones, and later he carved them. Until he could create on a small scale a little real ornament or a little doorway, he never dreamed he could create on a larger and more elaborate scale. The ordinary mason was in the bottom class ; the master-mason was in the top class at the school of architecture. The master-mason built the cathedrals.

Charles : Anyway, we are not living in mediæval times.

Eugenie : Very true indeed, Charles, we are not living in mediæval times. But I want to show you that if an architect is any good at all, he must know all about the creation of the smallest details on his building, and that these cannot be, as it were, grafted on from a foreign source. I want you to understand the intimate connection there is between carver and architect.

John : If a mere bit of string may be allowed to put in a word, I would say that there are now living certain sculptors who are creative artists.

Eugenie : Quite true, John. Yet all sculptors are not creative artists. I know one who photographs in stone.

Charles : What, really ? A new invention. Has he got his patent out ?

Eugenie : What I mean is, that to take a plaster cast of the human figure and carve it in stone is not to be a sculptor, any more than to take a photograph is to produce an artistic picture. Art is art because it is not nature. Art is in advance of nature ; beyond nature. A work of art originates from the mind of man. It enables us to see things and gives us feelings that nature alone cannot give.

Charles : Do you think a work of art would give me all that ?

Eugenie : Of course it would, if you don't insist that the man who pays the piper calls the tune.

John : Eugenie is right. A great sculptor, by arranging his lights and shadows, his masses and lines in a certain way, conveys to us certain feelings.

Charles : You're a sculptor : can you do that ?

John : Eugenie says I'm a mere bit of cat's gut.

Eugenie : My dear John, when you are played upon by the right master-hand you give out most beautiful music. Yet I can't make you play my music.

Charles : Really, if John can play great music into stone, I don't see why we can't allow him to carve our building.

Eugenie : He plays good music ; but not my music. He can't play my architectural music at all. Excuse my frankness, John.

John : Go on. I'm only a bit of the intestine of a quadruped.

Eugenie : A sculptor with the Gothic temperament cannot successfully interpret the architect's conception of sculpture for his renaissance building, nor can a sculptor of the classic temperament fulfil the needs of an architect's building in the modern spirit. The greater the architect the more fastidious is he in selecting his sculptors.

Charles : You're very fastidious, aren't you, Eugenie ?.

Eugenie : Please don't interrupt. Imagine a tiny replica of one of Michael Angelo's masterpieces put into a Gothic niche in place of the long slender figure that generally fills this lovely little crocketed and pinnacled recess. It would spoil Michael Angelo's masterpiece and, moreover, deface the cathedral. The sculptor has need of the right building for his works, just as the architect has need of the right sculptors for his architecture. The real place for sculpture is in architecture. The best sculpture in all periods has been done in connection with architecture. It is difficult to imagine how sculpture can exist for long apart from its architectural setting.

John : Sculpture certainly needs architecture ; it needs, too, the right kind of architecture.

Eugenie : If the sculptor is wise, John, he will accept no architectural work unless through an architect.

John : If an architect is wise, Eugenie, he will accept no architectural work unless he is allowed to choose his own sculptors.

Charles : I will build this place, spend £500,000 upon it, and adorn it with sculpture. Will you be the architect for it, Eugenie ?

Eugenie : Only on condition that I am allowed to choose my own sculptors. The work would be a failure else.

Charles : The sculpture will be for you to do, John. Do you accept ?

John : Only through an architect. Otherwise it means ruin to me in the art world. Eugenie has shown me that the sculptor's ægis is the architect.

The two bronze statuettes by Degas, recently purchased by the National Art Collections Fund, have been deposited on loan at the Victoria and Albert Museum and are now on view there in Room 64 at the entrance to the offices of the Department of Architecture and Sculpture.

Royal Institute of British Architects.

The following are Notes from the Minutes of the Council Meeting held on May 7 :—

Academic Dress Committee.—The following members have been appointed to serve on the committee to consider the details of the proposed Academic costume and to receive suggestions on the subject from Members and Licentiates :—Mr. W. E. Riley, Mr. W. Gillbee Scott, Mr. W. W. Scott-Moncrieff.

Public Museums and Picture Galleries.—It was decided to urge H.M. Board of Education and H.M. Office of Works, in the interests of the large number of workers whose employment renders visits and study by day impossible, to open the Public Museums and Picture Galleries under their control on certain evenings.

Architects' Fees for Speculative Housing Work.—A scale of fees for architects in connection with Speculative Housing work, drawn up by a conference of representatives of the R.I.B.A. Practice Standing Committee, and of the London House-Builders' Association and of the National Federation of House-Builders, was approved.

The General Council for the National Registration of Plumbers.—Mr. H. D. Searles-Wood and Mr. C. H. Heathcote were appointed to represent the R.I.B.A. at the meeting of the General Council for the National Registration of Plumbers, to be held in Bournemouth on June 8 and 9.

The City Churches.—Mr. Paul Waterhouse, President, and Mr. Arthur Keen, Hon. Secretary of the R.I.B.A., have been appointed as additional delegates of the R.I.B.A. on the Royal Academy Conference on the City Churches.

Reinstatement.—Mr. F. W. Wade has been reinstated as an Associate and Mr. William Evans as a Licentiate.

"The Architect" Fifty Years Ago.

May 17, 1873.

Hospital of the Hotel Dieu.

This unfortunate building has given the municipal authorities of Paris enormous trouble, the commission entrusted with the examination of the subject pronouncing the plan upon which it was erected to be in many respects totally unfit for the intended purpose.

The council some time since voted a sum of two millions of francs towards the completion of the building, but with the proviso that important changes should be made in the plan. Several projects were received, but none satisfied the council ; and finally, the subject was referred to M. Diet, the architect of the Assistance Publique, who produced new plans which have been adopted by a special commission and by the Municipal Council.

One great fault found with the structure was, that a portion of it obstructed the air from the rest : to remedy this the roofs are all to be lowered and the second floors of the river wings to be abolished, the lost space being made up in part by the increase in size of the bays of the other parts of the building. The interior arrangements are to be greatly modified ; portions of the building adjoining interior courts and close to the chapel are considered unfit for patients, and are to be devoted to other services, such as baths, library, laboratory, pharmacy, etc. This will, however, necessitate the removal from the building of the central office of admission, and of the abandonment of the intended baths for out-door patients.

In its altered form the new hôspital will only contain about four hundred beds, but it will not be crowded ; light and air will penetrate everywhere, and ventilation will be aided by machinery, so that the patients will be better off than in the other hospitals of the City. The wards will not contain more than twenty-six beds each ; they will be spacious and quite independent of each other, and will be provided with large open fireplaces. Two isolated wards will be set apart for contagious diseases. An elevator is to be provided by means of which the patients may be carried up in their beds from one floor to another, while shoots are provided by which soiled linen, etc., can be got rid of without delay. In the basement storey the arcades are left open in communication with the corridors, so as to ensure ventilation in that part of the building.

The expense of all these alterations will amount to a considerable sum ; the reduction of the mansard storeys, which will only be used as store rooms and bedrooms for the servants of the hospital, is estimated alone at about £31,540 ; the substitution of terraces for the second floors, £8,826 ; making, with minor items, a total of £50,378. The buildings still to be constructed will cost more than £200,000.

The total cost of the hospital will thus amount to at least £1,400,000, of which the site and its clearance absorbed rather more than one-half the sum.

In the present condition of the municipal treasury, the outlay of six or seven millions of francs on one establishment is a serious question, but the old hospital on the other side of the islet is rapidly crumbling away, and the Municipal Council has therefore accepted the proposed plan, and voted the sum of £100,000 towards the work.

Correspondence.

The R.I.B.A. Election.

To the Editor of THE ARCHITECT.

SIR,—I think our Associate Members ought to know that, although the present Council obtained a vote at a general meeting in favour of giving Associates the same voting powers as Fellows, the matter is not settled and must be brought up again. There was opposition to the proposal in the present Council, but not from any of the Anti-Unification members; but I think it my duty to state the fact that there *was* opposition, and I need hardly say that it is only the keenest and at the same time the most acute sense of my duty and responsibility as a Member of the Council that forces me to have the pleasure of saying anything unpleasant about any members of the present Council.

With regard to the coming elections I am not alone in realising that there are many poor, ignorant, innocent, child-like Members of the Institute who really cannot make up their minds upon the simplest matter, and they, no doubt, look on me, as they should, as a very eminent, kind-hearted, artful man who would help and advise them in their dilemma. Should any of them feel incapable of filling in a voting paper let them come to me and I will hold their hands and help them to cross out the names of the Unification candidates.

I feel I simply must write this letter. It breaks my heart to do it, but am I not a Member of the Council? and if my heart breaks it must, for, remember:—

Dead hearts are more than Baronets,
And more to us perhaps than Knights.

But I am afraid I am so inflated with the sense of my own importance that I cannot even quote correctly, but I fully realise I am doing what no other Member of the Council ever dreamt of doing before; perhaps this comes from our having no code of etiquette.—Yours, etc.,

Guildhall, E.C. SYDNEY PERKS.

To the Editor of THE ARCHITECT.

SIR,—I have a strong distaste for party politics and electoral polemics, and deplore, like so many others, their introduction into the elections of our Society.

At the present moment, however, such grave issues are at stake that no loyal Fellow or Associate of the Institute can well avoid the fray or forego his individual duty of influencing the electoral verdict, in accordance with his convictions.

I therefore assume the privilege of the "sere and yellow leaf," a condition that has so few privileges, to exhort my contemporaries, my many juniors, and my few seniors, in the Fellowship ranks to use their votes in this approaching election on either political issue, or upon none, for one list or the other, in accordance with their conscience, but to vote; and thus, if the result proves, on the morrow of declaration, to be other than what they desired, to avoid the unhappiness of self-condemnation for slackness or apathy.—Yours, etc.

May 11, 1923. EDWARD WARREN, Fellow.

To the Editor of THE ARCHITECT.

SIR,—I have read with much interest the letter from our President in your last issue, which, in my humble opinion, is full of very sound advice given at a very important period in the life of our Institute.

As a member of the present Council, I would like personally to acknowledge our indebtedness to a President who has at all times shown every consideration and fairness to all members at all times; but I would like to warn those who have a vote for the new Council that the present method adopted by a large section of the present Council is likely to cause a very serious weakening of the prestige of the R.I.B.A. inside and outside our Institute.

The adoption of what one might fairly describe as political methods at the last election, created, for the first time to my knowledge, that undesirable feeling and methods within the Council Chamber, and I feel it my duty to state plainly that, in my opinion, if this is allowed to continue, all interest in our affairs by those who work unselfishly in the interests of architecture will cease.

If every motion which comes up for discussion is to be adopted or turned down at the dictates of two or three leaders of a faction, in fact, if there is to be no freedom for all members to vote as they choose after hearing both sides, then no self-respecting person will desire to serve on the Council.

It has been deplorable during the present session that so much of the valuable work carried out by the Standing Committees should have been subjected to such methods, and thereby so often referred back without receiving the due consideration necessary before such action is taken.

I should urge every member of our Institute to vote without fail, but before doing so consider very carefully the merits of each candidate, but not to vote solely upon any political issue.

Let us remember that our Institute exists for the good of architecture and the profession as a whole, and that our Council should contain the names of those in the profession that are held in the highest repute by its members, and also by the great general public, whom we all desire shall have the highest respect for what we all know to be the most influential Society in the profession.—Yours faithfully,

20 Red Lion Square, W.C.1. STANLEY HAMP.
14 May 1923.

To the Editor of THE ARCHITECT.

SIR,—By their work ye shall know them. Which is best to support—the men who have taken the trouble to regularly attend the meetings of the Institute, or a body of men nominated who have long since been conspicuous by their non-attendance? A large number of the Council list have devoted years of hard spade-work on behalf of the Royal Institute of British architects, and their reward is to have a body of men nominated against them, many of them having for years exhibited absolute indifference to the affairs of their Corporate body. If reward of office is to be given for want of interest, then the majority of names put forward would be most appropriate.

To my fellow members I appeal with confidence, vote for the Busy Bees and leave out the Drones!—Yours, etc.,

"PROVINCIAL."

Draughtsmanship at the R.A.

To the Editor of THE ARCHITECT.

SIR,—Will you permit me to encroach upon your valuable space? Year after year notes are written on the R.A. Exhibition from the architectural point of view. You further also publish a survey of the painting and sculpture rooms. I should like to pay a tribute to the perspective artists who so largely contribute towards the interest and beauty of the architectural room.

Some may lament the lack of technical drawings there, but if we take the broad view I think it will be admitted that for public interest the present tendency is likely to be most beneficial.

In the present exhibition the work of three men stands out most conspicuously—P. D. Hepworth, Cyril Farey and T. S. Tait. To my mind P. Hepworth is represented by work which will go a long way to prove him to be the most versatile perspective artist we have possessed from any years. Eight exhibits bear his name; without any exaggeration, five totally different styles of treatment are manifested. One's attention is attracted on entering by his drawing of a Church, No. 1,160; the colour scheme is green and purple, and the building is thrown into sharp relief—the whole effect is very harmonious and original. "New Buildings, Piccadilly," is a crayon drawing full of vigour, free and bold, with the architectural detail effectively suggested. A little further on, "Entrance Detail, New Premises, Oxford Street," is executed in a style of which Mr. Hepworth has two further examples, viz., No. 1,302, a Church for Mr. Durst, and No. 1,204, another Church, for Mr. Maufe. Good though these drawings are, they would not stamp the artist as possessing great gifts if they were not shown in contrast to his other exhibits. For his next example we must pass to No. 1,276, which lies beyond two masterly pieces of work by Cyril Farey of "Britannic House" and a Church Interior for Mr. Walter Tapper, to which I will refer later.

Just beyond Mr. Tapper's Church I noticed a drawing of a small house; nobody would think that the hand that drew the "New Buildings, Piccadilly," was responsible for this effective sketchy exhibit, which is reminiscent of O. P. Milne, architect, who in former years identified himself with this sort of rendering.

We next pass to the central picture on this wall, a view of Delhi, for Herbert Baker, A.R.A., conspicuous by its intensely blue sky and purple shadows, illustrating the heat and glaring colour contrasts of India. Mr. Hepworth spent a number of months in India not very long ago, so that he is able to render the scenes from personal observation and study.

His next piece of work is for Mr. Guy Dawber, sombre in colouring, but very happy.

When we consider that all these drawings and colour schemes have been evolved in the short space of one month, I think the most hardened critic will admit that perspective artists might also be represented on the Royal Academy membership list.

Mr. Cyril Farey's work is well known to most of us. Last year he executed some very attractive paintings for Sir Edwin

Lutyens' Delhi scheme; but "Britannic House," in this year's exhibition, will need a lot of beating. Mr. Farey here shows that he has more than one style; all the colour tricks of which he is so fine an exponent (and perhaps, alas! of which we might be growing a little weary) are left out of "Britannic House." It is a truly great drawing and painting which will live long in our memories. He has a great number of exhibits to his credit which testify to his soundness. Amongst these the Church Interior, for Mr. Walter Tapper, and a drawing for Mr. Saul are of special note. We feel that his most disappointing work is for the President; this scheme might have been rendered more in the style of Mr. Saul's drawing, and have gained considerably in quality.

Mr. T. S. Tait is an artist with a style entirely his own. He represents to me in black and white what Mr. Walcot renders in colour. All the inspiration and poetry of Mr. Walcot's wonderful colours is expressed in the masterly vigour of Mr. Tait's black and white work.

I wish this artist could devote six months to purely imaginary exercises; a collection of cartoons would certainly materialize which would be a lasting credit to himself and a valuable asset to the whole profession.

The "Jerusalem Memorial Pylon" is a fine drawing. It has also been my privilege to see a number of wonderful drawings made by him in connection with various schemes such as his Adelaide House and Selfridge's Building sketches, and also the Ramsgate Improvement schemes.—Yours, etc., H. M.

Architects' Benevolent Society.

The annual general meeting of this Society was held on Tuesday, the 15th inst., at 9 Conduit Street, W., Mr. Paul Waterhouse, P.R.I.B.A., in the chair.

ANNUAL REPORT.

The Council, in their seventy-third Annual Report, state that 77 cases have been helped during the year, and the sum of £1,705 4s. has been spent in relief, £1,320 14s. in grants, and £384 10s. in pensions. The augmented subscription list due to the appeal made in 1921 has been maintained, the sum of £1,119 14s. having been received in subscriptions. In addition to this amount, £750 7s. 9d. has been received in donations and legacies.

Notwithstanding the increase in subscriptions, the Council feel that the number of subscribers is still disproportionately small compared with the number of practising architects, and that it is necessary, if deserving applicants are to be assisted adequately, to increase the Society's income. With this end in view the Council have developed a scheme of Professional Insurance by which the Society receives commission on life and other insurances effected through it by members of the profession and which, it is hoped, will in time add greatly to the Society's funds. The following letter, together with an appeal for subscriptions and donations, was sent out in February to all members of the Institute, the Society of Architects and the Architectural Association, and also to Presidents of Allied Societies, Directors of Architectural Schools, and the whole of the professional Press:—

> In view of the many demands made on the Architects' Benevolent Society as the only philanthropic organisation in the United Kingdom solely devoted to the assistance of architects, or their widows and orphans who have fallen on evil days, and in view also of the difficulty the Society often experiences in affording adequate and effective help, the Council have now developed a scheme whereby they hope, with the co-operation of the profession, materially to increase the Society's funds and enable it to grant a fuller measure of relief to applicants than it finds possible at present.
>
> In brief, this scheme is that the Architects' Benevolent Society should act as an agent for life assurance, the commission thus obtained to be shared by the Benevolent Society and the architect who insures. Thus, if you insure your life for, say, £1,000, half of the sum of about £10 received as commission will be credited to the Society as a subscription to its funds in your name, and the other half will be returned to you in the form of rebate. If, however, you prefer it, the second half may also be regarded as a contribution to the Society's funds. All subsequent commissions received in respect of renewals will be treated as a subscription to the Society in your name.
>
> Insurances can be effected with or without medical examination, and full particulars will be supplied on application to the Secretary. If desired, insurances other than Life will also be arranged for.
>
> In this way a regular income will be assured the Society; but the amount received for each insurance will naturally be small, and it is only by engaging the sympathy and help of the profession as a whole that we can hope to augment our funds to any appreciable extent. If every architect would realise that by effecting his insurances through the Benevolent Society he is not only acting in his own best interests, but is helping to insure for the less fortunate members of the architectural community a provision against want and poverty-stricken old age, he would, we feel sure, give us loyal and enthusiastic support.
>
> We are, yours very truly,
>
> PAUL WATERHOUSE,
> *Chairman.*
> W. HILTON NASH,
> *Honorary Treasurer.*
> CHARLES A. NICHOLSON,
> *Honorary Secretary.*

There was a generous response to the appeal for donations and subscriptions, and over a hundred inquiries were received with regard to insurance, many of which have since matured.

The Council have gratefully to acknowledge many large contributions, among which may be mentioned:—£100 from Mr. A. Greville Montgomery (per Mr. Paul Waterhouse), £50 from the Students at the Architectural Association, £21 12s. from the Architects' and Surveyors' Approved Society's Benevolent Fund, £21 from Messrs. Paul and Michael Waterhouse, £15 15s. from Mr. Stanley Peach, £10 10s. from Messrs. Imrie & Angell, £5 5s. from the Northampton Architectural Association, £5 5s. from Mr. F. E. Pearce Edwards, £5 5s. from Messrs. Daniel Watney & Sons, £5 from Mr. Arthur Welford, and £5 from Mr. W. St. Leger Crowley. The following legacies were also received:—£250 from Mr. T. L. Green, £100 from Mr. Alfred Williams, £100 from Mr. Shewell Corder, and £20 from Miss Raggett in accordance with the terms of her bequest. The Society of Architects have increased their annual subscription by fifteen guineas, the total amount now subscribed by them being £26 5s.

The stocks and shares have been re-valued by the stockbrokers and show a considerable depreciation in value.

To fill the position rendered vacant last year by the death of Mr. Ernest Newton, the Council report that Sir Reginald Blomfield, R.A., has consented to become one of the trustees of the Society.

The five senior members of the Council retire by rotation, viz.: Mr. W. Henry White, Mr. William Woodward, Mr. Maurice E. Webb, Mr. Henry M. Fletcher, and Mr. H. D. Searles-Wood.

To fill the vacancies caused by these retirements the Council nominated Messrs. Osborn C. Hills, G. Hubbard, L. S. Sullivan, A. Saxon Snell, and H. L. Anderson.

Mr. Paul Waterhouse, in proposing the adoption of the annual report, said it was one of the pleasantest interludes in the functions of the President of the Royal Institute to appear in a nominal way as head of the Architects' Benevolent Society. He had more and more realised that among the most gratifying things was for architects to work together. The report showed that the hopes for the maintenance of the subscription list have been justified. The new insurance scheme was a means for honestly making money, and he wished it every success. Already insurances for £6,000 have been effected. There was just one danger in the possibility that their friends might think the Society had tumbled into a gold mine. But the scheme opened up a vast untouched field. Architecture was a desperately precarious profession and it was even quite possible that a man doing a great amount of work might, through no fault of his own, fail to be making good money. Letters received by the Society sometimes gave an extremely touching insight into the nature of the donations. There was one thing that was most important apart from the spirit of charity, and that was continued effort, without which they could not go on to success.

The following Council were elected for the year of office 1923–24:—

President—The President of the R.I.B.A. *Ordinary Members*—Messrs. Dendy Watney, Henry Lovegrove, Kingwell, Lewis Solomon, Percy B. Tubbs, Arthur Sykes, William Grellier, Osborn C. Hills, G. Hubbard, L. S. Sullivan, A. Saxon Snell, H. L. Anderson, R. Dircks, E. J. Partridge (representing the Society of Architects), and W. G. Newton (representing the Architectural Association).

A vote of thanks was passed to Mr. W. Hilton Nash for his services as hon. treasurer, and he was re-elected.

Mr. W. Hilton Nash, in returning thanks, mentioned that a retired architect who had been asked to design a house had generously handed over the commission, some £75, to the Society instead of keeping it for himself. With regard to the insurance, they had had thirteen policies amounting to £6,486, which benefited their funds to the extent of £31 6s. It was hoped that this figure would be increased during the year.

A vote of thanks to Sir Charles Nicholson for his services as hon. secretary was passed, and he was re-elected.

The retiring hon. auditors, Mr. C. H. Brodie and Mr. Henry Lovegrove, were thanked for their services and re-elected.

A vote of thanks was proposed to the President on the motion of Sir Charles Ruthin, seconded by Mr. Percy B. Tubbs.

Replanning Congested Areas.*

By Professor S. D. Adshead, M.A., F.R.I.B.A.

In Clause III. of the Housing, etc. (No. 2), Bill provision is made whereby one half the loss on a re-housing scheme, whether it be carried out under Part I. or Part II. of the Act of 1890, is borne by the State, the other half being met by the Local Authority. At present, and in anticipation of the passing of the Bill, in certain towns the Ministry have undertaken, out of a sum set aside by the Treasury for the purpose, to pay annually one half the loss on certain undertakings that are limited in cost.

If Clause III. of the Bill now before Parliament goes through it will be the financial clause governing the re-planning of congested areas, and taken in conjunction with Clause IX. of the Act of 1919 which deals with acquisition. will for all practical purposes be the legislation that will in the main control the carrying out of re-housing schemes in congested areas in the future.

In more than one rural area and country town, where the inherited mediæval slum is as unhealthy as is the worst slum in Liverpool or Manchester, it is stated that the State assistance of one half the loss is totally inadequate, and that such Councils—of whom there are a great number having such slums in the area—can no more think of charging half the loss to the rates, than of suddenly raising the rates 100 per cent.

This condition of things does not apply to London and the larger cities, where, no doubt under the offer of the State, a considerable amount of clearance may be expected to be done.

With such thin financial assistance as is in this Bill proposed, and with such untried and complicated powers of acquisition as are given in the Act of 1919, occasion is offered in the carrying out of a scheme for the exercise of considerable technical skill. Within the scope of the law it would appear to be quite easy for a Local Authority to burden itself with a great deal of unnecessary pulling down, perhaps owing to there having been prepared a very indifferent plan; perhaps owing to houses being included that could be better dealt with under Section 17 of the Act of 1909; perhaps owing to difficulties arising due to inadequate arrangements having been made for the re-housing of the dispossessed; and, lastly, perhaps owing to unnecessary litigation being entered into owing to the inclusion in the area of buildings which are not houses and which need not have been included had there been prepared a really clever scheme.

Now it is of the greatest importance to have prepared a really clever plan. It will have to be a rather cunning plan—a plan that has been prepared with a very clear recognition of the obligation of owners, as well as of the Local Authority; a plan which dovetails its radical improvements into an area of houses and buildings of varying interests, and over which varying powers can be exercised in such a way as to appear when the work is completed that the whole area has been dealt with as though it were a scheme under Part I.

The layman, and sometimes even the lawyer, possesses a remarkable and even a childlike confidence in the ability of architects when they are confronted with the neat and finished proposals of that profession. They do not always realise that there are such differences as clever and indifferent plans. They accept the proposals of their architect as though it were the one and only proposal that could be made in respect of such a scheme.

From the financial point of view, as well as the social and administrative, the success of a scheme will depend more upon the making of a really good plan than upon any other of those factors such as the valuing and acquiring of sites, the borrowing of money and the settling of disputes.

One important question is as to what really constitutes an unhealthy area.

The legal definition is not much use to an architect. What an architect has just to look to in examining an unhealthy area is as to what can be put into a reasonably fit condition, and what must necessarily be pulled down—either because it is too congested or too worn out.

If the buildings are reasonably sound, whitewash, the insertion of a damp course, improved sanitation, and, perhaps a new roof covering, will often be better and cheaper than pulling down.

In the main pulling down is necessary, not for the purpose of re-building, but for the purpose of providing light and air. Pulling down is also necessary where buildings are really worn out. Old and worn-out houses are like worn-out machinery. If funds will run to it, it is nearly always a better proposition to pull down entirely and re-build. There will be a big loss at the outset, but a much bigger return in the long run. But most towns will not be able to embark on such completely new and expensive schemes as, for instance, those of the London County Council, but will have to be satisfied with a good deal of patching.

That being so, in considering the preparation of a scheme for the improvement or re-building of an unhealthy area in a town of, say, 100,000 to 200,000 inhabitants, the first thing to look to is the condition of the property, apart from planning and congestion. If the condition is such that to put it into a reasonable state of repair it would cost more than half the cost of rebuilding, then schedule it to be pulled down; if, on the other hand, it can reasonably be repaired or altered on plan, say by reconstruction so as to make two tenements into one, or if only new sanitary fittings, whitewash, paint and pointing are required, schedule it to stand.

A survey having been made on such lines, then mark the houses to be pulled down in red, and now start your planning, remembering that with the vacant sites so created, it is up to you to find a solution for re-planning the area which will so fit in with buildings that need not be pulled down, that when completed the plan will appear as a nice straightforward scheme having open spaces and roads so placed that there is every appearance of it having been planned on entirely open land. To do this requires the highest skill in planning, but it is wonderful how with persistent effort such solutions can be found.

Again reverting to the question of what should stand and what should be pulled down, consider for a moment the different kinds of unhealthy areas that are likely to be met with.

These might be classified thus:—

1. The crowded areas that are found at the backs of main streets in old towns, and

2. The crowded areas that were the result of early industrial prosperity.

With regard to the first, such areas are found to exist in very old towns in England, and are largely the result of:—

(*a*) The town walls.

(*b*) The inability of the townsfolk to obtain building land owing to common rights, the difficulty of negotiating with big landowners, and right up to the present day the inelasticity of agreements with agricultural tenants and others who hold leases from big landowners over practically all the building land immediately outside the town.

As a result of this we get the curtilages of all the old houses (many of them now shops) crammed with tiny cottages either facing narrow passages or arranged in any sort of formation along alley-ways which thread the intervening spaces between the streets. Towns like Norwich, Plymouth and Totnes afford excellent examples of this kind of unhealthy area.

It must be borne in mind that as a rule clearance schemes in such areas are less feasible than in the crowded area of purely industrial towns, and also that the architectural character of the buildings (many of which date back to quite remote periods) is such as to justify the most careful protection and repair, rather than pulling down. Many of our most picturesque streets in England are composed almost entirely of old worn-out houses that the Medical Officer must condemn. But we should not be in too great a hurry with the housebreaker's axe.

Here a lesson from the Germans is not out of place. Their old Rhine cities have in many cases been consciously preserved as historic monuments, and it is worth while when, say, we get some old town like Plymouth, with its ancient walls, which thousands of Americans visit every year, to very seriously consider the question of preserving the façades, while cutting out the entrails, and this if only as a commercial proposition and quite apart from their intrinsic architectural and historical interest.

As regards the other kind of congested area, which consists of crowded cottages in the vicinity of eighteenth century industrial progress, here we have an entirely different problem. Here the old streets will, in the main, be found to conform to regular shapes and follow parallel lines. Here we get the back to back type, the inner court, the single privy, and the single water tap.

A good deal can be done in the way of converting back to back into single houses, in entirely demolishing intermediate lengths of buildings behind streets that are too near together and always in clearing out back areas which have been filled up with odd cottages and small workshops or warehouses and creating these into open playgrounds instead.

Typical proposals of this kind have been made in Manchester and Carlisle. In both cases the result of providing housing accommodation for workers in connection with the railways and both of which were erected, say in 1840, or thereabouts.

The Carlisle case is particularly interesting as an example of the system of building back to back houses round an open area. Unfortunately, the back to back houses were only single floors. An examination of the buildings themselves showed that had they been thoroughly cleaned very little repair would have been needed. The great defect was their planning and the fact that the area which they surrounded had been completely filled

---

* Abstract of a paper read before the Town Planning Institute on May 4.

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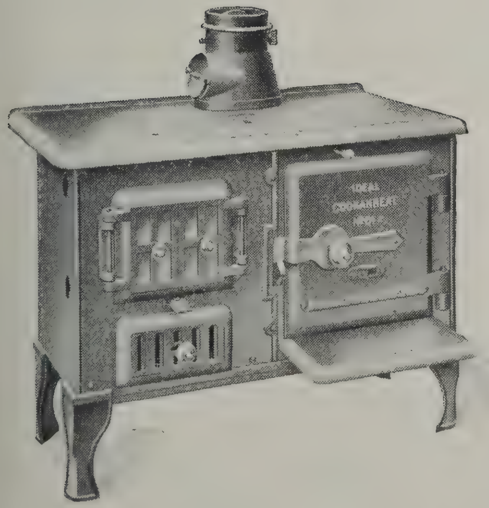

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in with every conceivable kind of small property. There appeared to be very little difficulty and comparatively small expense in converting what were four-roomed tenements into two-story cottages. This was, perhaps, not an ideal scheme, but it is one which should recommend itself as, at any rate, a vast improvement where financial considerations will not allow of a big Part I. improvement scheme.

Another interesting case is at Brighton. Here in the early fashionable developments of Brighton, when there was a big increase in the population of those who, in one way and another, served the visitors, the lowest class areas became frightfully congested. The interest in this Brighton case, which is to be seen repeated in every old seaside resort, including towns like Yarmouth and Ramsgate, is that terraces of quite different periods and of different dates and different types of plans have keyed into one another. Such areas require very careful handling in order to utilise to the best advantage the legal powers at the disposal of Local Authorities.

The slums of Manchester and Liverpool are conspicuous in the regularity of their planning. The very oldest slums in Liverpool are, purely from an architectural standpoint, exceedingly well designed, the typical Liverpool slum being a series of inner courts approached by arched passages through connecting buildings, the inner courts having on two sides back to back houses.

Almost all the houses in Manchester and Liverpool are cellared throughout, and these cellars, which are approached in many cases from areas, have, in the past, been thickly populated.

As a matter of fact, removal of slums in this country has often been the result of main road improvement schemes, and many of our big road improvement schemes have been carried out as much with a view to destroying worn-out areas as providing improved public transport facilities.

The case of Shaftesbury Avenue and Kingsway illustrate this. It is a very interesting and important point to be kept in view in connection with slum clearance, as the construction of a new road will often enable a Council to carry through a scheme of slum clearance, otherwise quite impossible.

It has always been an open question as to the extent that the tenants of worn-out property can be rehoused in the new buildings that will be erected on their site. Liverpool claims to have practically rehoused the whole of the dispossessed in certain areas. The L.C.C., under Mr. Riley's superintendence, managed to house a large proportion, but by no means all. Unless some very special arrangements are made with the old tenants, there is very little likelihood of rehousing on the area more than a very small proportion, and these only amongst the very poorest class.

The problem with which Local Authorities and the London County Council were confronted before the war of financing accommodation for the dispossessed, was in reality hardly any problem at all. In fact it was one of those problems which was usually allowed to take care of itself; but this is not the case to-day, the question of dealing with the dispossessed being to-day so difficult as to render the pulling down of houses without very definite accommodation being provided by some means elsewhere, an absolutely impossible undertaking.

Sometimes there appears to be no solution of this difficulty except by erecting temporary huts in a big open square and utilising them as the passing abode of tenants temporarily dishoused.

Another solution which seems to be recommending itself to certain Local Authorities of smaller industrial towns is to erect groups of houses on the nearest possible vacant land to the slum, with the hope that the whole of the dispossessed can be attracted to these new houses. As yet there has been no real experience of such a scheme of rehousing, and it remains to be seen to what extent there is a possibility of such a solution, but it seems that the class of tenant who occupies these very old houses is not a class which can be readily removed to any distance from one district to another, and it will always be found necessary to erect some type of block buildings on the area of the dispossessed to, at any rate, accommodate the older and more deeply rooted occupants of the slums.

The argument for tall buildings—such as it now appears to be the policy of the London County Council to erect—is that in such tall buildings a much larger number of people can be accommodated on the same area. There is also the point that a high building helps to pay ground rent. This latter argument is entirely a delusion, as unless the land is most frightfully expensive, which it need not be if purchased under the recent Housing Acts, the cost in extra thick walls and fireproof staircases, and in meeting all the requirements of the Building Acts connected with the building of tall houses becomes so great as to completely extinguish any saving that may appear to be effected in ground rent.

The lecturer said he had greater faith in transport and the spread of cities than most people, and he thought that as general policy it was a mistake nowadays to erect buildings for the working classes without lifts of a greater height than three stories. It was entirely a different matter when it comes to the middle-class flats with lifts, but for working class dwellings he had yet to be convinced that, provided there is adequate space between the buildings, no greater number of people can be housed on an area in tall buildings, say, of five stories than buildings of three stories high only.

On the Duchy of Cornwall Estate at Kennington, so far, it has always been the policy to confine the heights of buildings to three stories, and no one has regretted it. On more than one occasion buildings of four and five stories have been designed; but, as mentioned, the extra cost of thick walls and fireproof staircases has absorbed all the extra profit in rents.

There are a great number of new types of buildings apart from ways of dealing with old ones, all suited to the accommodation of the working class in towns, but the type which appears to appeal to a very great majority of people that occupy these areas is the two-story flat.

The London County Council are building two-storey cottages and six-story buildings, one on top of another, and there is a good deal to be said for this. There is always likely to be a better circulation of air in a two-storey building than in a one-story flat.

Then there is a very interesting kind of building of which there are a few examples in London, of erecting dwellings with their fronts turned towards an inner court instead of to the street. Amongst these may be mentioned the Whitgift Hospital at Croydon, about the preservation of which so much has been recently heard.

A similar building to this was erected on the Prince of Wales's Estate at Kennington for 52 tenants. The streets outside were dull and all interest was centred on an internal garden.

Timber Preservation.

The attached photograph of Bush House, Kingsway, is of considerable interest to architects, contractors and property owners generally. It shows the method adopted for preserving all the joists, bearers, battens, etc., used on the underside of the wood floors of the building.

These are all dipped in a trough of Solignum and allowed to dry before being fixed. By this means all danger of future trouble from dry rot is avoided and the timber is permanently preserved.

In the case of wood floors laid on concrete it is impossible to admit the necessary ventilation underneath to counteract the risk of dry rot, and consequently treatment with a good wood preservative is the only remedy and one which must save its cost many times over.

It is a matter that might well be kept in view by all architects of public buildings, large and small.

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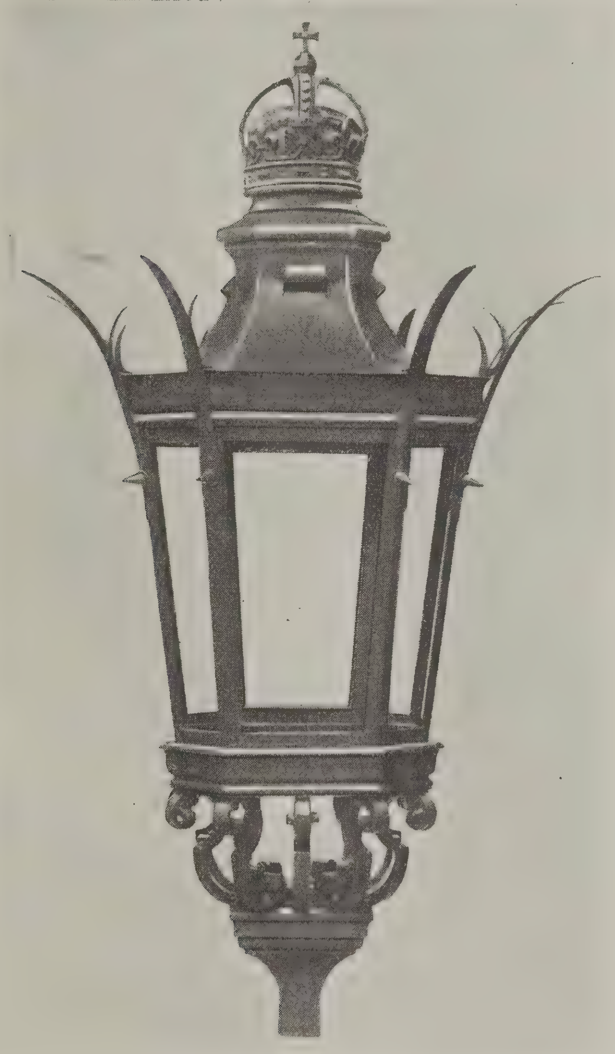

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Building Trade Crisis.

The finding of the arbitrator in the building dispute was published on the 15th inst. The employers' modified demands were :—

> A reduction of 2d. an hour in London and grade A towns, and 1½d. and 1d. per hour in other towns.

The arbitrator's award is :—

> Grades A and B craftsmen outside London shall be reduced by 1d. an hour, and in the London area by ½d. Grade C craftsmen shall be reduced by ½d. an hour, and labourers' wages shall be maintained at 75 per cent. of the craftsmen's wages.

The Award.

The arbitrator, Sir Hugh Fraser, again met representatives of the employers and the operatives at his chambers in the Temple, London, on Tuesday last, and communicated to them the terms of the award, which are as follows :—

I find that the agreement referred to in the reference to arbitration as the National Wages and Conditions Council document requires revision by mutual consent in the interests of the entire industry, and in order that the purpose and intentions of the parties thereto should be more clearly indicated, I award and direct that such revision shall be made at or before the statutory meeting in January, 1924. In the meantime, with the object of securing peace in the industry and stability in regard to wages and conditions of employment, I award and direct that the following alterations shall be made in the document forthwith :—

1. In clause 14A of section 2—rules of the Council—after the figures and words "170 per cent," the following words shall be inserted : "In all regions except London and 164½ per cent. for London."

2. That clause 14B of section 2—rules of the Council—be altered by substituting the figures 5½ for the figures 6½ throughout such clause 14B, these figures, therefore, determining the rise or fall in wages in accordance with the index figures of the cost of living.

3. That clause 14C of section 2—rules of the Council—be deleted.

4. That the parties shall strictly adhere to the sliding scale in wage adjustments.

The New Wages.

5. That on and from Saturday, May 26, 1923, the rate of wages shall be reduced as hereinafter indicated, and shall not be varied prior to the date of the statutory meeting in January, 1924.

1. Grades A craftsmen, with the exception of London, and grades B craftsmen shall be reduced one penny per hour.

2. In the London area craftsmen shall be reduced one halfpenny per hour.

3. Grades C craftsmen shall be reduced one halfpenny per hour.

4. Labourers' wages shall be maintained at 75 per cent. of the craftsmen's wages as nearly as possible.

All the reductions mentioned above shall be on account of future adjustments rendered necessary by the operation of the sliding scale.

I desire to add that the representatives of both parties exhausted all possible arguments in favour of the claims of those they represented in a manner which left no doubt in my mind as to the profound sincerity in the interpretation placed by each side on the national agreement.

(Signed) Hugh Fraser.

Loyal Observance Ordered.

We, the undersigned assessors and representatives of the respective parties in the arbitration, call for loyal observance of the above award and directions contained therein by all parties interested throughout the country.

Benjamin I. Greenwood and Alex. Gordon Cameron, assessors.

Signed on behalf of the National Allied Building Trade Employers : W. H. Nicholls (chairman), Stephen Easten, J. P. Cox, and A. G. White (secretary).

Signed on behalf of the National Federation of Building Trade Operatives : George Hicks (president), J. Walch, S. Taylor, and R. Coppock (secretary).

Control of State Contracts in Australia.

His Majesty's Trade Commissioner at Sydney (Mr. A. Simpson) has forwarded to the Department of Overseas Trade an extract from the Sydney "Sun" of March 14, which states that a new board has been formed to control Government contracts and the buying of stores amounting to over £2,000,000 a year, the object being to avoid duplication and unnecessary expenditure, and to get better prices by accepting materials in larger quantities. The report goes on to say that the proposal was approved by the Executive Council, and a body of responsible officials has been formed to put the scheme in working order.

This body will control all State enterprises and the buying of stores and supplies for Government departments.

Under the new scheme, which involves a yearly outlay of £2,000,000, the new board hopes to effect a substantial saving in the buying of supplies and the control of the State's enterprises.

The £2,000,000 may not necessarily be spent in the scheme, but that sum will be set aside for the use of the board to the advantage of the State.

The members of the Board of Management are :—

The manager of the State Stores Department (Mr. A. Berckelman).

The Controller of Stores in the Water Board (Mr. Bagnall).

The Controller of Stores for the Harbour Trust (Mr. Wood).

The Commercial Officer of the Irrigation Commissioners (Mr. Lewis).

The Superintendent of Stores, Public Works Department (Mr. Peterson).

The Acting-Controller of Stores, Postal Department (Mr. Barrow).

Mr. Barrow represents the Commonwealth, which is also interested in the matter.

The Treasurer (Mr. Cocks) stated that the new board was an improvement on the old system. He could not say that the sum of £2,000,000 was involved in the scheme, but in all probability the board would have power to make purchases up to that sum. There had been no drastic changes except that the old stores committee had been reconstituted and given additional powers.

General.

The Market Hall at Truro is to be improved by the City Council at a cost of £6,000.

We regret to announce the death of Mr. Robert William Collier, F.R.I.B.A., on May 12 at 25 Woodstock Road, Bedford Park, W., at the age of 68 years.

Midlothian Education Authority have instructed the Superintendent of Works to prepare plans for new schools at Kirknewton, Newtongrange, and Newtownloan.

Messrs. Bateman & Bateman, of Birmingham, are the architects for the wholesale and retail markets about to be erected at Bromsgrove by the Urban District Council.

The Bristol City Council have adopted a scheme involving an expenditure of £120,000 for the rebuilding of the Central Police and Fire Stations in Bridewell Street. The loan will be spread over a long period, and the Home Office will probably contribute £40,000.

The Architecture Club's exhibition of "Twenty Years of British Architecture" has been transferred from Grosvenor House to the Manchester City Art Gallery, where it was opened on the 11th inst. by Lord Sheffield. The collection will remain on view for a month.

The Conisborough Urban Council, encouraged by the new Housing Bill, have revived their original scheme for 240 parlour houses. These they estimate can now be erected for £110,000, and let, with the aid of the Government subsidy, and a penny rate, at an economic rent.

A committee of the Westminster City Council has under consideration an extensive scheme for alterations at Piccadilly Circus in connection with the proposed erection of a large tube railway junction at this centre, with subways giving access to various points round the Circus.

The Public Works and Town Planning Committee of the Birmingham City Council, on the 10th inst., let contracts to Messrs. R. Lehane & Co., Ltd., Darley Dale, for the erection of 170 non-parlour houses in Burney Lane and Cottrills Lane, Washwood Heath, at a total cost of £60,190, or an average of £354.

The capital cost of the 176,000 houses built under the Housing Act, which includes 4,500 erected by public utility societies and trusts, will approach £190,000,000, and the annual charge to the Exchequer will be approximately £750,000 in the early years. It is hoped to secure a reduction on this charge in later years, as loans are reborrowed at lower rates of interest.

Tours of the Galleries in the Victoria and Albert Museum are not ordinarily made on Sundays by the official guide, but on Whit-Sunday, May 20, Miss E. M. Spiller, of the Art Teachers' Guild, has volunteered to conduct a party at 3.15 p.m. The subject of the lecture will be "English Life in Shakespere's Times as illustrated from Exhibits in the Museum." Visitors who wish to attend the tour should assemble in the Central Hall. The party will be limited to twenty-five. No charge is made either for admission or for the above tour. The museum is open on Sundays from 2.30 to 6 p.m.

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Real Values.

The letters we have received and the views we have heard expressed on the subject of the R.I.B.A. election convince us that, though it is possible that either side may be the true leaders of the profession, only the opponents of Unification are willing to lay their cards upon the table. The *soi-disant* aristocrats of the profession do not rely on argument but on assertion, assertion which does not seem to us to be well founded. They profess their willingness to serve the highest interests of architecture and of architects by converting the Institute from a fair-sized body of men who have insisted on the application of a reasonable examination test to *a very much larger body of which a great part have not and will not be asked to qualify for the Associateship.*

How this can advance the highest interests of a great profession we are at a loss to imagine, and why this proposal is supposed to be a necessary prelude to obtaining a measure of Registration we cannot imagine either.

Neither do we see that a man's power of design or the extent of his practice necessarily renders him the most itting person to deal with the affairs of the Institute, which largely consist of matters of routine and business. We may say at once that the members of the Council of the Institute should be practising architects of good standing and of irreproachable honesty; but, hat being said, is it not more important that they hould primarily be men having more time to give o administrative matters rather than those who are omewhat euphemistically described as being great "artists"? We know by sad experience in the case of competitions that the best architects do not always nake good assessors, because what is wanted in an assessor is not imagination or invention, but judgment and a sense of equity.

The same qualities are wanted in the conduct of he affairs of the Institute, and it seems to us to be unreasonable to try to create prejudice by talking grandiloquently about the "highest interests of architecture."

In saying this we do not for a moment concede that he epithets used are justified, but they seem to us o be both unmannerly and irrelevant.

We must at times differ from one another, but when we do is it either necessary or wise to conduct a campaign in a manner which will very probably result in a cleavage of the relations of fellowship and good will—a cleavage which will probably remain?

Those who honestly oppose Unification have been reated and spoken of as if they were the pariahs of the rchitectural profession. They have been accused of gerrymandering last year's election, when they did nothing of the kind. *We do not consider that any man's standing in the profession or any man's achievements as an architect give him a freehold interest in the Council of the Institute.*

It is for the general body when they exercise their voting power to say whether this or that man represents heir views and is their chosen representative, and urely we should not recommend ourselves to that lectorate by our prowess in skilful use of invective.

We have heard the present Council blamed because they did not place on their nomination lists the names of prominent men who opposed their views simply *on their merits as architects*; but surely this is absurd and illogical. Directly a vital issue arises, or when there is a sharp conflict of opinion on matters we all know as cardinal, the most that either party can do is to select the best men whose views accord with their own. The one exception is, to our mind, that of the President —since, whatever his personal views may be, he is no longer a protagonist but the representative of the whole profession before the public, having no part in any controversy, *but being the mouthpiece of the Council chosen by the electorate.* For this reason, with one exception, in the whole history of the Institute there have been no contests, though we remember occasions when the choice of the Council was by no means popular.

But while we recognise that at this time the choice of party candidates for the Vice-Presidents and members of Council was inevitable, there is no reason why this should continue, unless the results of the election produce a stalemate.

If either party win decisively we should be in favour of ending the strife unless the policy adopted breaks down either through the impossibility of agreeing on a Registration Bill or, on the other hand, of carrying out a scheme of Unification. Short of this we think the party which wins should be left to carry out the will of the electorate. It may be that those who are opposed to Unification may be sufficiently strong and determined to secede from the R.I.B.A. in the event of its adverse decision. If so, the course is reasonable and understandable. Otherwise we ought to be able to look forward to the selection of a Council list next year which will contain the names of men who have fought on both sides—a selection made on the basis of their general merits.

But there is one other point which is important whatever Council should be elected. We refer to the system of patronage and the bestowal of appointments.

Any President and Council who will abandon the custom of giving a large proportion of the "plums" to members of the Council, and will even go to the extent of excluding them from such appointments, would commend themselves to the members of the Institute more than it could in any other manner.

If any man seeks office for what he may get his services may be great, but will be discounted by others. But if men serve their fellows and gain no personal reward by so doing their services will be rated at their true value. We think this is a point which may well be considered by those who are put in power by the electorate, as we believe that integrity of purpose and absolute disinterestedness will give the members of any Council that may be elected a greater reputation among architects and a greater power for good than they could achieve in any other manner. The time-honoured rule by which a member of Parliament has to seek re-election if he accepts a paid office is not a useless form but a real safeguard, and one which has frequently stopped unwise appointments. Such a custom could not be applied in a professional body, but would it be too much to ask men to pledge themselves to accept no Institute appointment for the short space of a year devoted—we borrow the phrase—to furthering the highest interests of the Art of Architecture? It would not lessen the number of creations of the heaven-sent designer or permanently check the career of a great genius, but it might convince the rank and file of the profession that the great ones amongst them are really labouring in the interests of Art, and would even convince the sceptical.

Our Illustrations.

SHEFFIELD TOWN HALL EXTENSION: NEW RATES HALL. F. E. P. EDWARDS, City Architect.

TWO FIGURES OF THE MADONNA AND CHILD. TEMPLE MOORE & MOORE, Architects. JOHN ANGEL, Sculptor.

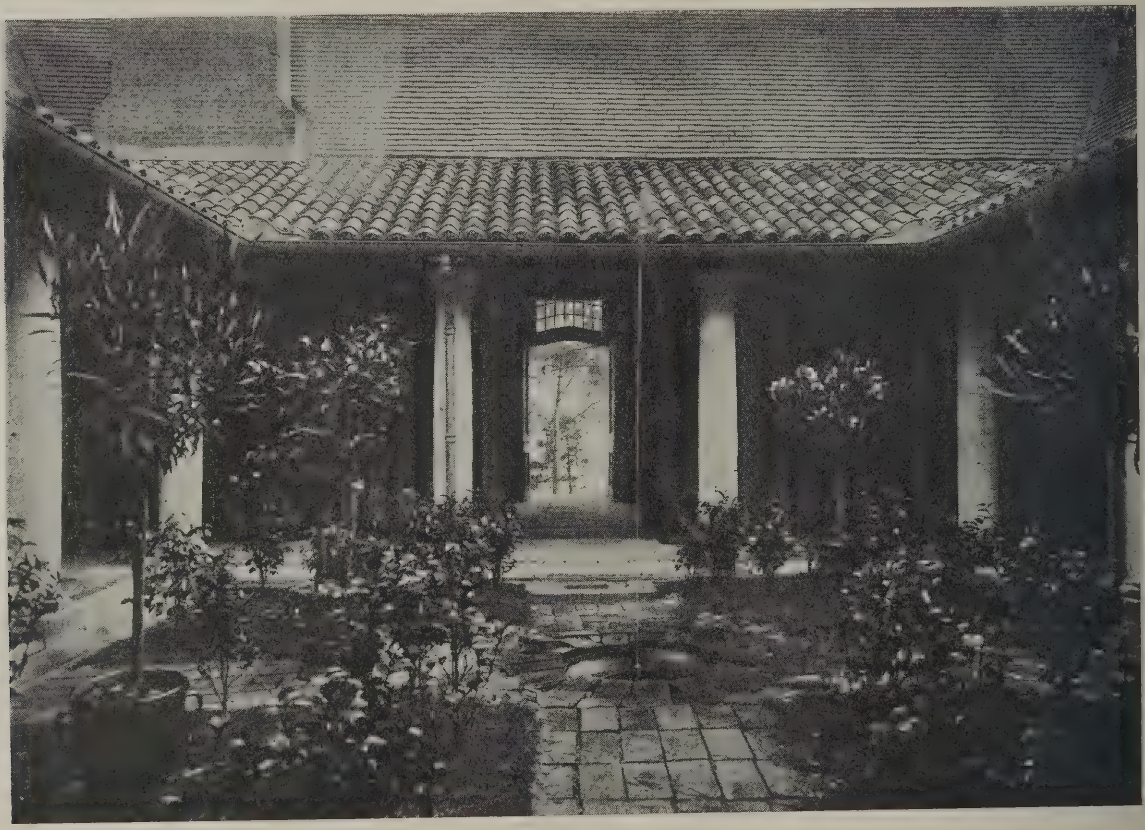
The two figures of the Madonna and Child are executed in stone, and that in the Pusey House Chapel is decorated in gold and colour.

BUTCHERS' CHARITABLE INSTITUTION, HOUNSLOW. W. H. ANSELL, F.R.I.B.A., Architect.

The completed scheme will give accommodation for over sixty pensioners, and is in the form of an open forecourt to the road with a quadrangle behind. The portion completed consists of quarters for thirty-two pensioners, superintendent's and nurses' houses, laundry and workshop, stores, etc. The buildings are all faced with 2-inch bricks, with Portland stone columns, bays, etc., and the roofs are of grey-green Cornish slates. Window frames are of oak with steel casements; window sills of red tiles. The floors are fire-resisting.

Messrs. Norris & Co., of Sunningdale, were the builders. The following were the sub-contractors: Leaded lights, Messrs. Geo. Wragge, Ltd., Manchester; electric lighting, Messrs. Waring, Withers & Chadwick; stoves, The Falkirk Iron Co.; casements, Messrs. J. Gibbons; gates and ironwork, Messrs. Strode & Co.

"THE WOOLSACK," MIMIZAN. DETMAR BLOW & FERNAND BILLEREY, Architects.



INTERNAL CLOISTER, "THE WOOLSACK," MIMIZAN. DETMAR BLOW & FERNAND BILLEREY, Architects.

This hunting lodge was built by the Duke of Westminster about half-way between Bordeaux and Bayonne, in the Landes, where the pine forests are still inhabited by wild boar, on the side of one of the large lakes (l'Etang d'Aureilhan).

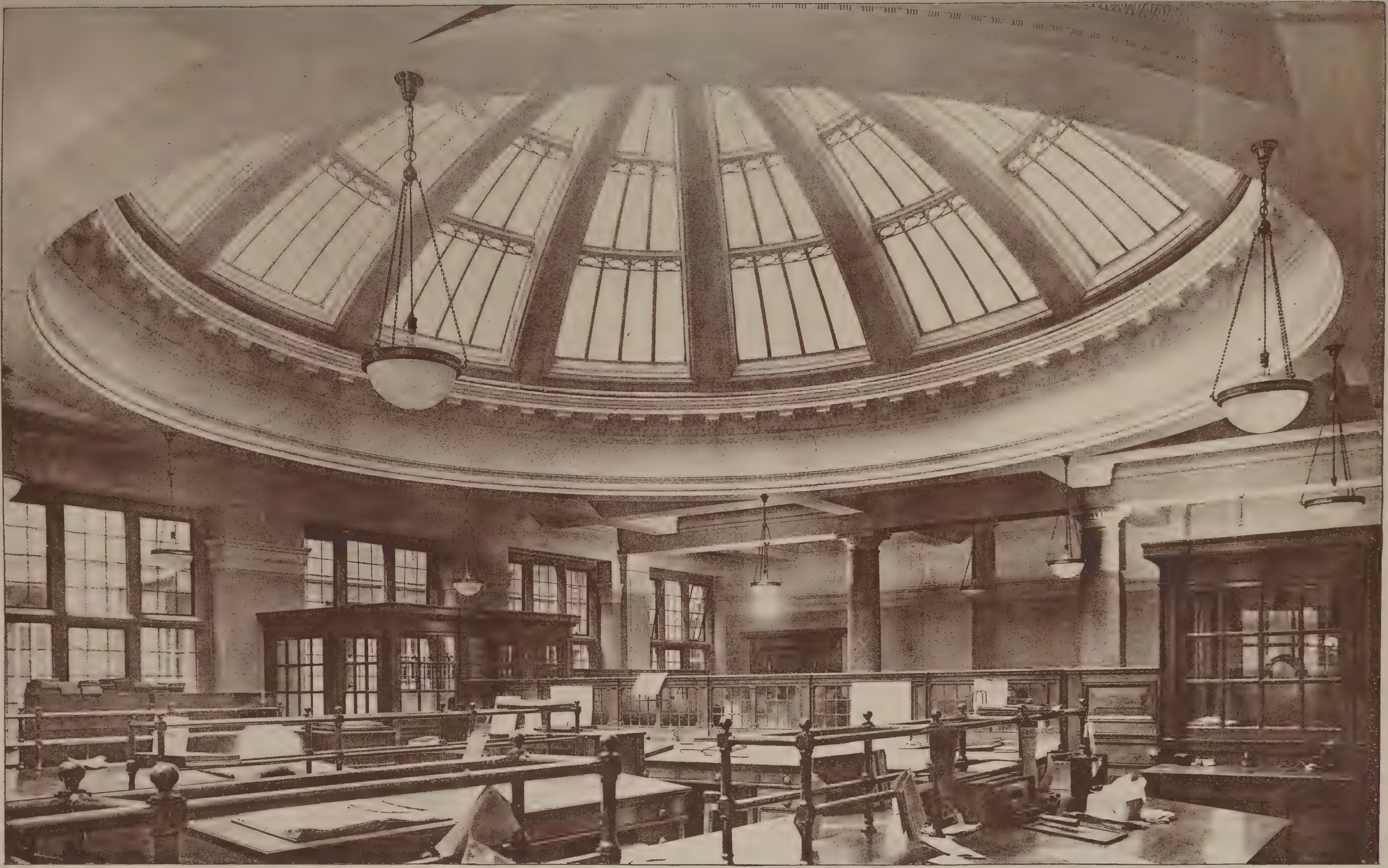
The one-storey accommodation, particularly suited to the mild climate of the district, provides for only four bedrooms and bathrooms, two living-rooms and servants' accommodation, all distributed round a cloister and open court similar to the Roman Atrium. This cloister affords communication between the rooms, and a fountain in the centre of the Atrium, surrounded by camelias and oleander, completes the southern atmosphere of the planning.

The main side of the house is a terrace overlooking the lake through the tall pines of the forest, and broad flights of brick steps lead to it.

The most practical access to the house is by boat across the lake, the forest tracks formed with a bed of pine needles being solely suitable to the local mule-carts.

In building the house, all use was made of the materials and craftsmen of this picturesque country. The narrow hand-made wood-burnt bricks, the oak posts of the half-timbered structure dressed with the adze by the local carpenters, gave a local touch to the texture of the walls, the hollow tiles of the district affording means of treating copings and other features in accordance with local tradition. Only the stone columns of the cloisters were imported from Bordeaux, and the metal windows from England.

Oak and marble fireplaces, oak boarded floors and panellings formed the decoration of the principal rooms, one typical feature being the outside doors, which open in two halves so that the upper portion may remain open and the scented atmosphere of the outside fill the room night or day.



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THE NEW RATES HALL, SHEFFIELD TOWN HALL EXTENSION.

F. E. P. EDWARDS, F.R.I.B.A., CITY ARCHITECT.

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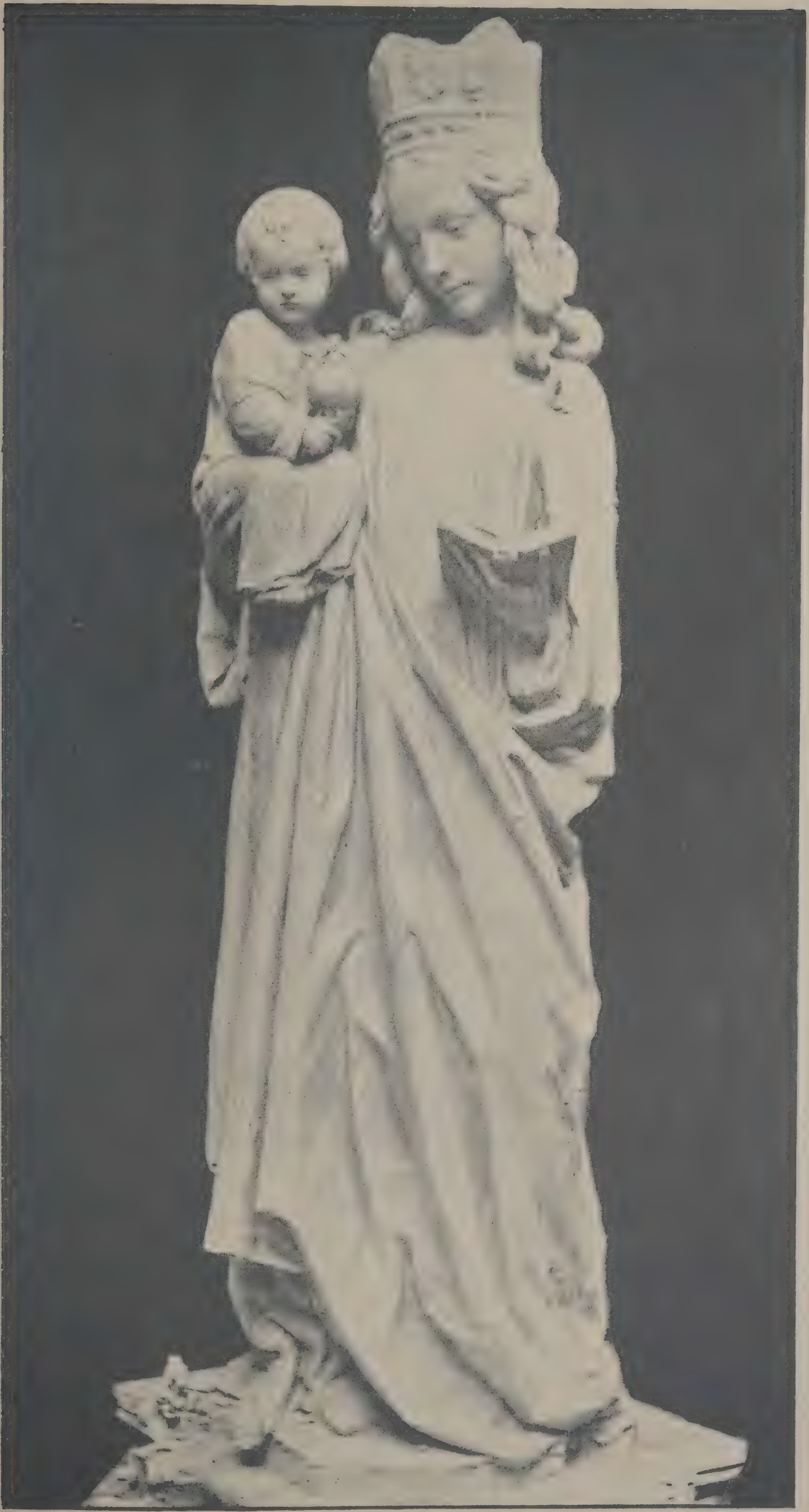

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THE PUSEY HOUSE CHAPEL.

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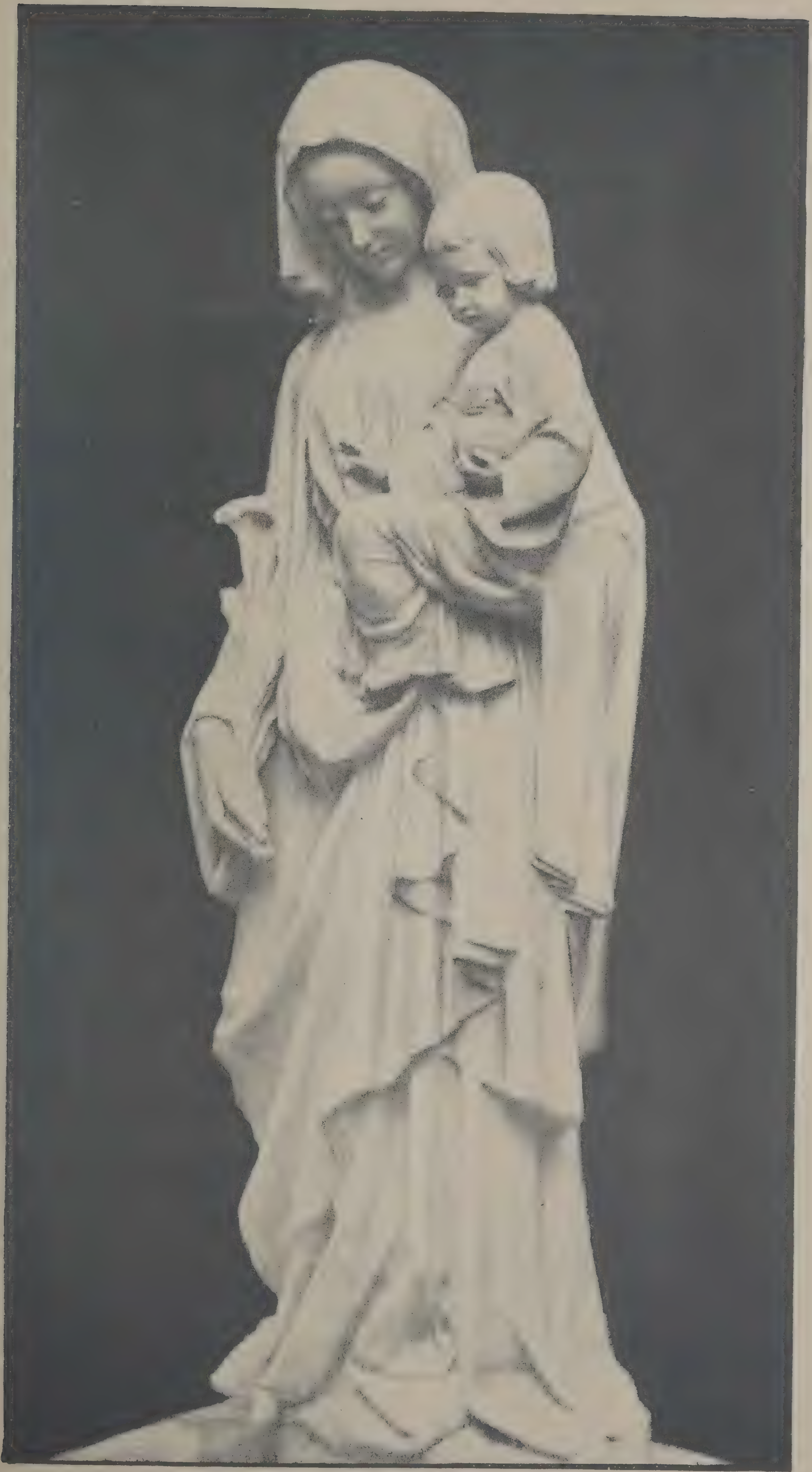

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St. MARY'S CHURCH, BEVERLEY.

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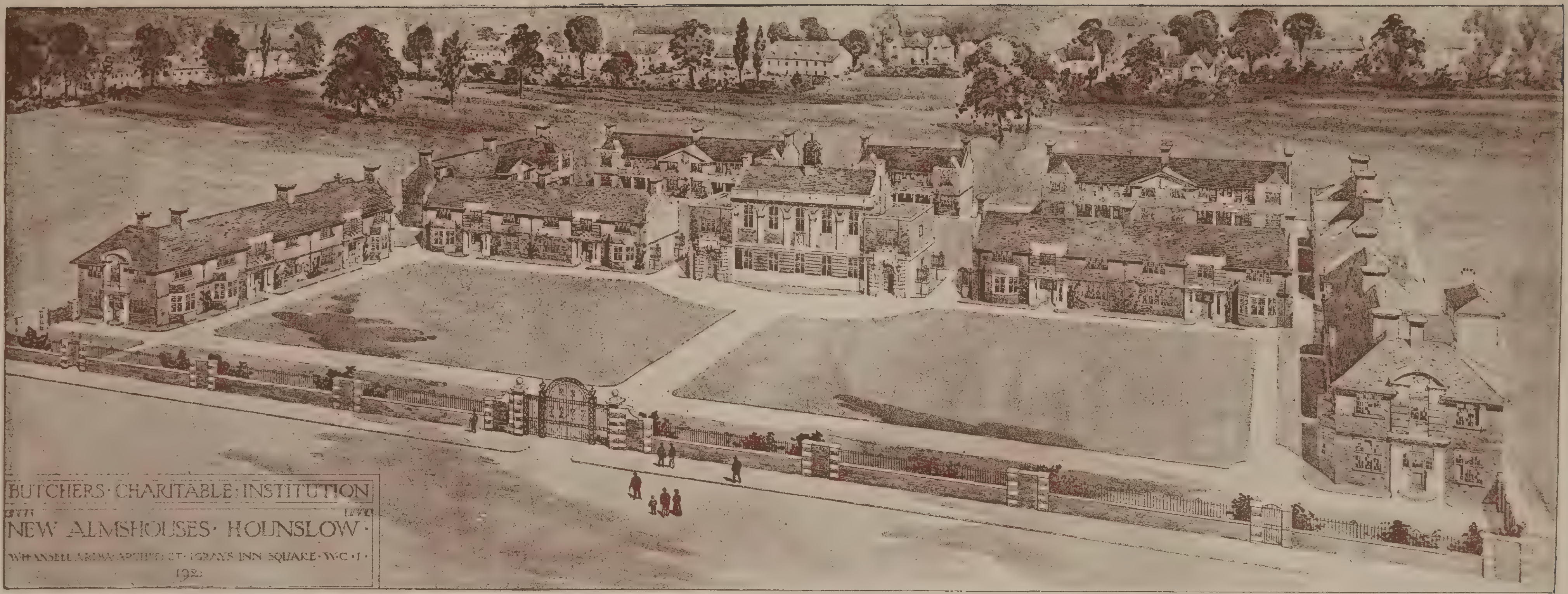
BUTCHERS·CHARITABLE·INSTITUTION
NEW ALMSHOUSES·HOUNSLOW·
W·H·ANSELL·F.R.I.B.A·ARCHITECT·1·GRAYS INN SQUARE·W·C·1·
1922

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BUTCHERS CHARITABLE INSTITUTION, HOUNSLOW.

W. H. ANSELL, F.R.I.B.A., Architect.

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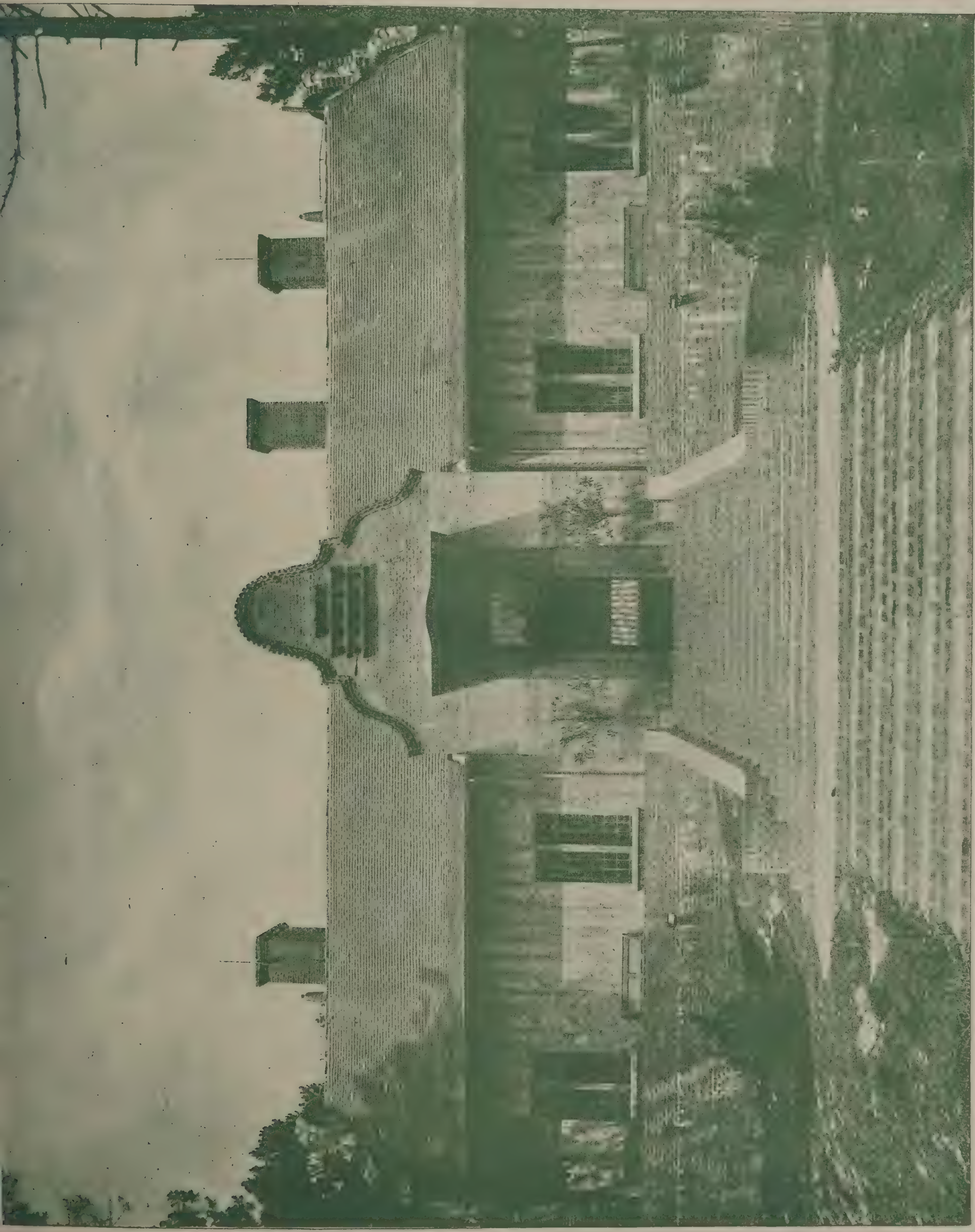

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THE WOOLSACK, MIMIZAN

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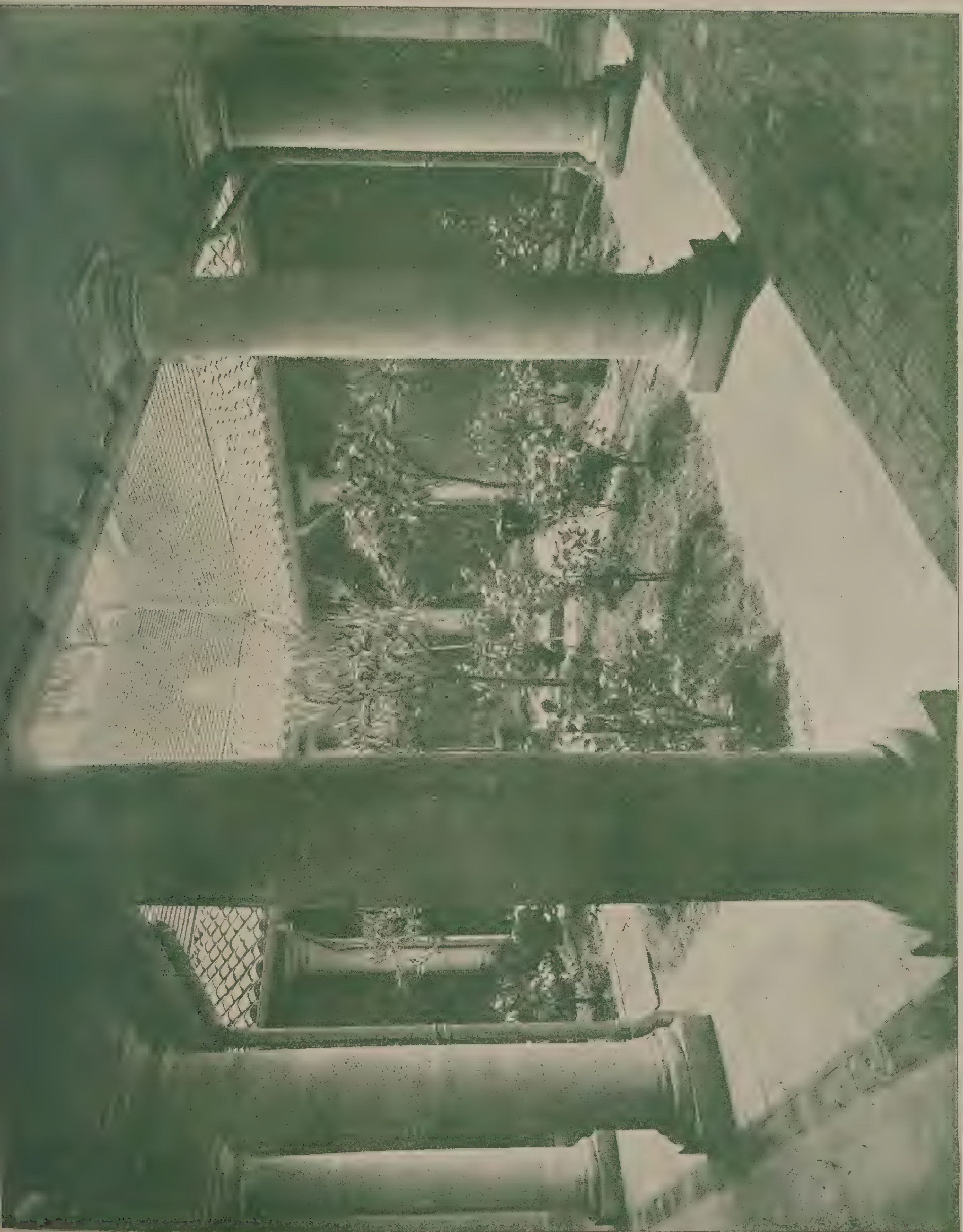
THE ARCHITECT, MAY 25th, 1923.



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COURTYARD GARDEN, THE WOOLSACK.

DETMAR BLOW & FERNAND BILLEREY, ARCHITECTS.

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Notes and Comments.

The Incorporated Church Building Society.

This Important Church Building Society have issued their 105th Annual Report, in which the valuable and useful innovation of illustrating a selection of the churches built and assisted is introduced. While many Church societies show an unfortunate falling off of income, the income of the Incorporated Church Building Society has slightly increased in amount, this result being due to its excellent organisation and management. In 1921, 28 grants were made in 18 dioceses, involving a total of £2,200; in 1922 the grants numbered 48, spread over 26 dioceses, to which £3,370 was given. Three applications were for building new churches, three for rebuilding old ones, and 37 for repairing and enlarging churches. The Society has helped to build or repair over 1,000 churches in Wales, at a cost of £94,000, over £35,000 having been devoted to the diocese of St. David's alone. In all, the Society has aided in the erection of over 2,791 new churches and in assisting to improve the accommolation of over 7,112 other churches or chapels of ease, while the actual money entrusted to it has amounted to £966,261. We wish it well in the very useful work it has undertaken and so well performed.

Difficulties of Building.

We seem once more to be threatened with a renewal of the difficulties experienced a few years ago in connection with the high cost of building materials, and none of us eel great faith in the ability of the Government to interfere vith success between the producer and consumer. We have oeen told, on what is apparently good authority, that bricknakers have not been making undue profits, but it now ppears that not only are costs being rapidly advanced but hat bricks are in many cases not obtainable. We have ecently heard that German bricks can be imported and lelivered in London at prices which amount to something ike one-fifth those of English bricks, and we are afraid if he present position continues there may be a pronounced endency to favour their use. It would be a misfortune if ve have to either see building checked or carried on with he aid of foreign bricks and cement at a time when there s much unemployment, and we must all hope that the producer will do a little more to meet the urgent wants of he present time, even if this means foregoing all that might e obtained in the way of immediate profits.

Higher Buildings.

Mr. Oswald Milne has written a good and interesting rticle in the "London Mercury" on the vexed question f higher buildings which has been so much under discusion here for the last few years. Mr. Milne appears to hold, s we do, that the general treatment of the problem should e on the basis of some such zoning laws which are rapidly ecoming the rule in the greater American cities, and on his we think he is right, also in his condemnation of the nreasoning system which allows the construction of uildings of a maximum height on old foundations irrepective of the width of the streets on which such buildings ront. Our difficulties have arisen from a too individualtic and personal treatment of these questions, which hould be settled on principles of general reason as applied o the growth of a city as a whole. We do not think that he prejudice which exists for keeping the area of certain usiness activities within the confines of the old City of ondon should be allowed to govern the question, lest the ity should be converted into an area of enormously high uildings threaded by narrow lanes or streets. The bolition of our old friend, the law of ancient lights, would ive much reasonable room for expansion in the City ithout a general increase of heights, and seems to us ombined with some kind of a zoning law to be what we nostly need.

The City Churches.

When Sir Banister Fletcher says, in a letter to the Times," that public opinion has been flouted by the Metropolitan Churches Committee appointed by the National Assembly of the Church of England, who have drafted a measure to facilitate the union of benefices and the disposal of churches within the Metropolis, we are inclined to press for a definition of "public opinion." Surely the National Assembly of the Church of England represents a not inconsiderable body of people whose considered views form a section of the public opinion involved. It is true that they collectively may be in the position of representatives of the legal owners, but surely their views are not to be brushed aside for that reason? If so, the owners of the great houses of England should be allowed no voice in any question which may arise concerning them, and the only persons to decide questions will be those who have no pecuniary or other interest in the matters discussed. It is too easy to denounce those who would sell if we cannot under any circumstances share the proceeds of a sale. If the City or if the Nation, or if anyone else, possesses rights of ownership because the funds for the building of the City churches were largely derived from the coal dues, the legal position should be established, though it would seem even in this case that the values are mainly those of sites and not of buildings, and the value of the buildings might be due to the representatives of the State or the City and that of the sites to the Church. The whole question seems to us one which must first be dealt with on a basis of fact and equity, and not till this has been determined should there be any discussion of the advisability or otherwise of what is or may be proposed.

Rates.

Two years ago the housing shortage in America was almost as acute as in this country; but much building of houses, factories and offices has been since carried out. Though labour and building materials are scarce, and rents are high, the difficulties are being surmounted, the building trade is working full time, and the building of public works is being suspended until the pressure relaxes. The Rent Restrictions Act, which by keeping down the rents of old houses adds to the reluctance of their tenants to move into new houses on which an economic rent is chargeable, is answerable for the position which obtains here. The Act is a stimulus to overcrowding, but even without it there would still be an insufficiency of houses, as the example of America shows, and we might profit by American experience in making the deficiency good. In New York buildings have been exempted from local rates for a term of years; in Pittsburg 40 per cent. of the value of improvements have been exempted from taxation in perpetuity; but the taxation on sites remains. We may well pause before we reject methods proved by experience to be successful, either in favour of untried schemes or modifications of a system which has completely broken down here within the last few years.

The Master Builder.

(Lines Written in Commemoration of Sir Christopher Wren.)

He built for them new temples: in each fane
The fires of fantasy and art were lit:
The stone was hewn, and then he conquered it
By genius that brooded not on gain.
Into the blue his towers proudly raise
Their magic mould, as when the artist's touch
Turned blocks of masonry, in crafty clutch,
To lines that spell the master-builder's praise.
To him the virtue of the city sky
Made practice for a pencil wielded well.
When fire had razed their structures, then the cry
Of wonder grew, as potently his spell
O'er city wastes was cast, its magic spent
To shape for him a wondrous monument.

W. Curran Reedy.

The Gentiles shall come to thy light and Kings to the brightness of thy rising

REREDOS PANEL, ST. WILFRED'S, HARROGATE. TEMPLE MOORE & MOORE, Architects.

The Architects' and Surveyors' Approved Society.

The annual general meeting of the Architects' and Surveyors' Approved Society was held at the Surveyors' Institution on Tuesday, May 15, at 6 o'clock.

Mr. F. R. Yerbury occupied the chair.

The first business of the meeting was to pass a vote of condolence to the family of the late Mr. George Corderoy, who was one of the founders of the Society, and chairman for many years. This was proposed from the chair and carried in silence.

The report of the Committee of Management for 1922 was submitted and approved.

REPORT OF THE COMMITTEE OF MANAGEMENT.

The Society has sustained a very great loss by the death of Mr. George Corderoy, which took place on March 3, 1923. Mr. Corderoy was mainly responsible for the formation of the Society, and became its first chairman, which office he held until ill-health compelled his resignation. He continued to act as a member of the committee, and attended a meeting shortly before his death. The committee offers its sincere condolence with the late Mr. Corderoy's family in their bereavement.

The committee, after very careful consideration, came to the conclusion that the best interests of the Society would be served by bringing it into closer co-operation with the Architects' and Surveyors' Assistants' Professional Union, which body represents generally the architects' and surveyors' assistants, and it was therefore decided to transfer the office to that of the Union, and on the resignation of Mr. F. R. Yerbury, who has acted as secretary (and lately as hon. secretary) to the Society since its formation, to appoint Mr. John Mitchell, Secretary of the Union, General Secretary of the Society, and Miss S. Double, F.F.I., Administration Secretary. It is proposed that the majority of the Committee of Management should, in future, be composed of members of the Assistants' Union, with representatives of all the other professional bodies concerned.

Owing to the war and the general increase of salaries after the war, the membership of the Society decreased very considerably, but now that conditions are generally becoming more normal the membership is showing a steady increase. The committee trust that members will do their best to persuade all those entitled to membership to join the Society, which is limited to those employed in the architectural and surveying professions.

Below is given a record of payment for various benefits made by the Society during 1922 :—

	£	s.	d.
Sickness benefit	144	5	9
Disablement benefit	81	13	6
Maternity benefit	33	0	0
Subscriptions to hospitals	27	2	0
Dental benefits	31	3	11
Optical benefits	4	4	3
Surgical appliances	0	10	6

A subscription of £25 was made to the Hospital Saturday Fund, and the committee wishes to acknowledge the most valuable help which has been afforded to various members of the Society by this Fund

Attention is again called to the fact that the Society, in addition to the special benefits, is able to give members letters for special hospital, dental and convalescent treatment, and it hopes members will take advantage of these.

The Society's invested funds now amount to upwards of £8,709 17s. 2d., and it seems evident that when the next valuation takes place for the period ending December 31, 1923, the Society should be in a position to give even greater benefits than at present, but it looks to its members to do all they can to increase the membership by bringing the Society to the notice of all assistants coming within the scope of the National Health Insurance Acts.

Arising out of the report it was pointed out by the chairman that all communications from members must in future be sent to the new address at 36, Victoria Street, S.W.1, after May 21, 1923.

The following alteration in the rules was proposed and carried, and the following committee elected.

Alteration of Rule E (see Rule 6 (1)), to read as follows :—

> The Committee of Management shall consist of 24 members. The Secretary of the R.I.B.A., the Secretary of the Surveyors' Institution, the Secretary of the Architectural Association, and the Secretary of the Society of Architects, with one other representative from each of these bodies, and sixteen members of the Architects' and Surveyors' Assistants' Professional Union.

Election of Committee.

Members of Professional Assistants' Union :—

Mr. W. H. Hamlyn, A.R.I.B.A.
Mr. G. N. Hannam, P.A.S.I.
Mr. J. A. Gould.
Mr. R. G. Strachan, F.S.I.
Mr. Chas. McLachlan, A.R.I.B.A.
Mr. J. E. Rhind, A.R.I.B.A.
Mr. H. D. Funnell, F.S.I.
Mr. L. E. Wheble.
Mr. A. Benson.
Mr. W. I. Waghorne, F.R.I.B.A.
Mr. S. V. Thompson.
Mr. S. R. Day.
Mr. F. E. Hughes.
Mr. J. O. Hughes, M.S.A., A.M.I.S.E.
Mr. H. Worley.
Mr. C. F. Cornelius.

Mr. Ian McAlister, M.A. (Oxon), Secretary, R.I.B.A.
Mr. Herbert Shepherd, A.R.I.B.A., Representative o R.I.B.A.
Mr. A. Goddard, C.B.E., Secretary, Surveyors' Institution.
Representative of Surveyors' Institution (not yet elected).
Mr. F. R. Yerbury, Secretary, Architectural Association.
Mr. L. S. Sullivan, A.R.I.B.A., Representative, Architectura Association.
Mr. C. McArthur Butler, F.C.I.S., Secretary, Society o Architects.
Mr. E. J. Partridge, F.S.I., Representative of Society o Architects.

Treasurer, H. D. SEARLES-WOOD, F.R.I.B.A.
General Secretary, JOHN MITCHELL.
Administration Secretary, MISS S. DOUBLE, F.F.I.

Mr. F. R. Yerbury was unanimously elected as Chairman o Committee.

The Housing Tragedy.

By E. G. Trobridge, Architect.

APPROACHES.

In the previous articles I have contributed in recent issues* I have pointed out that the housing tragedy cannot be cured by erecting houses with only a 60 year life. Further, that there are substantial numbers of the uncapitalised class who would be responsible for interest and repayment of cost and repairs of all the houses which are required, provided the cash required did not exceed 5 per cent., and the repayments did not exceed, with interest, £1 per week. This would prevent any loss in house building and place the houses in the most suitable hands, and keep overhead charges at a minimum. I also pointed out that modern sewage works and farms are a fetid extravagance. The local authorities could utilise, without offence, all the waste products of most houses, in the gardens thereof, certainly in all new houses; and thus get rid of stink, flies, and areas wasted by sewage disposal and create a vast asset by fertilising about 40,000 acres of land for intensive culture for the occupiers of the houses.

This article deals with an effort to eliminate further unnecessary expenditure, viz., that relevant to the approaches to houses.

Provision for traffic should be made only by first and second class roads. The domestic approaches should have reserved a strip of land sufficient to convert the approach into a second class road if traffic proved it was so required. Otherwise the width should not exceed 20 feet, of which 8 feet only should be made capable of supporting vehicular traffic. Probably experience would prove that cross roads would provide sufficient turning points; it is of little consequence if vehicles in passing mount the green sward at such rare occasions as they would meet.

Roads should on all occasions be reduced to the smallest possible width that will amply provide for their traffic, because roads are enemies of health and comfort from most points of view, as may be seen by the following—tarred roads in summer give off a suffocating fetid smell and draw the feet by their heat; other roads make dust which is bad for breathing, clothes and foliage. All these defects are in ratio to the width of the road.

Wide roads require surface water drainage and narrow do not.

Hard flat surfaces such as paving destroy the pliability of the feet, and until the feet are defective a green sward is much the most comfortable surface to walk on; further, if the surface water is not drained away the grass will support the usual domestic traffic continuously.

In view of the foregoing facts I urge that domestic approaches should not exceed 8 feet in made road, as such a track is sufficient for its purpose, and will not require surface water drainage, and its dust will be easily absorbed by the adjoining sward.

Country traffic quite as great as our domestic is often provided for with such tracks and no defects are obvious; certainly none that would justify the expenditure of the hard earned money of the uncapitalised class.

In some districts new roads which are only domestic approaches are required to be 40 feet wide and are kerbed, channelled, paved, with two paths and a heavy tar mac. road, along this are placed silly cut trees which might have been modelled from a cheap Noah's Ark.

Such a vast expenditure on a useless dust purveyor is a disgraceful imposition on the frontagers and a grave hindrance to housing.

In some housing areas the ratio of roads to house plots is as 40 is to 150. This is ridiculous.

It is such wasteful requirements which make it necessary to consider the elimination of parlours and things which really matter, and therefore the former should be ruthlessly cut down.

We must get rid of expenditure which at best is only desirable, while we are being forced to do without mere necessities.

I would rather go to a house across a ploughed field than sleep on the widest road ever made or in some filthy slum. These latter are at present the choice of many good hard-working members of the uncapitalised class.

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* See THE ARCHITECT, April 13 and 27, May 11.

Forthcoming Events.

Saturday, May 26.—Institution of Municipal and County Engineers. Eastern District Meeting at Southend-on-Sea and South-Western District Meeting at St. Austell, Cornwall.

Architectural Association. Visit to Great Shardeloes, Amersham, Bucks. 3 p.m.

Monday, May 28.—Royal Institute of British Architects. Meeting at 9 Conduit Street, W. Paper by Mr. Delissa Joseph, F.R.I.B.A., entitled "Building Heights and Ancient Lights." 8 p.m.

Surveyors' Institute. Annual General Meeting at 12 Great George Street, Westminster. 5 p.m.

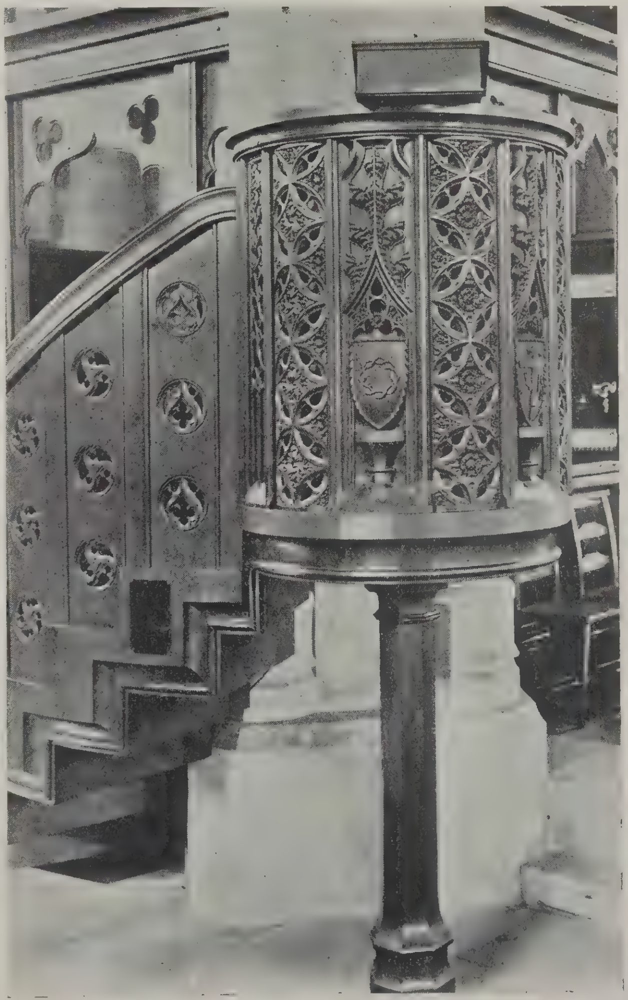
Tuesday, May 29.—The London Society. Visit to Old Highgate, to commence at "Cromwell House," Highgate Hill. 2.30 p.m.

Wednesday, May 30.—Architectural Association. Meeting at 34 Bedford Square, W.C. Paper on "Danish Architecture," by Mr. Carl Brummer, of Copenhagen. 7 p.m.

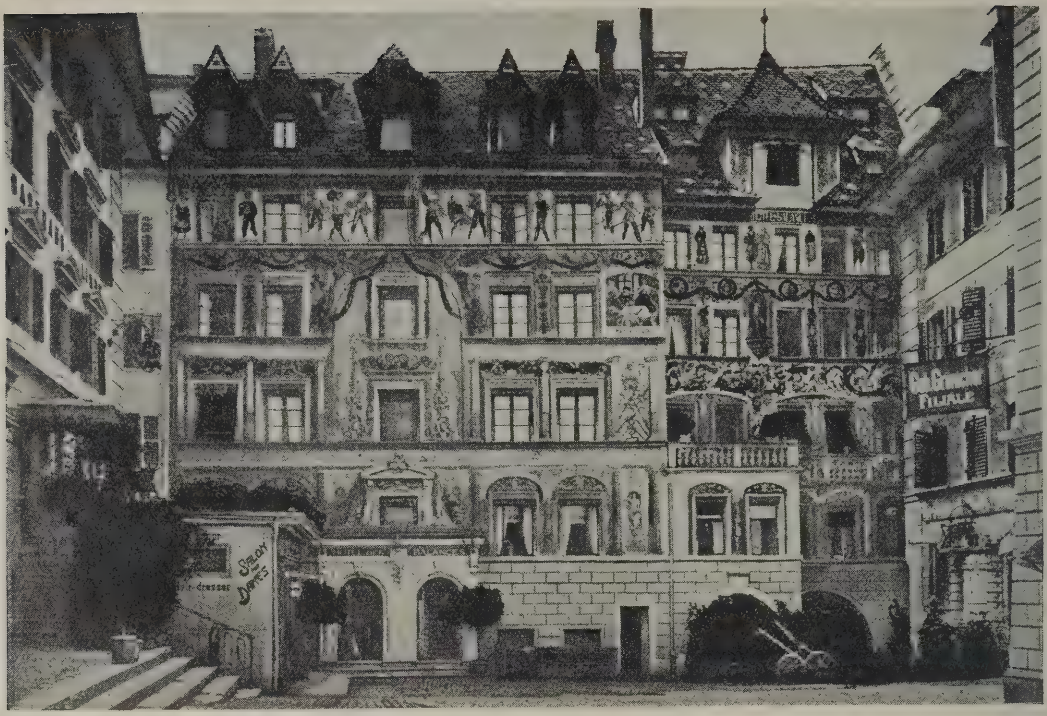
Friday, June 1.—Institution of Municipal and County Engineers. North-Western District Meeting at Rochdale. 2.45 p.m.

Saturday, June 2.—Royal Institute of British Architects. Visit to Hampton Court.

Judge Cann, in the Brighton County Court recently, decided that linoleum is furniture. In the case before him he found that there was sufficient linoleum to justify its being regarded as furniture enabling the maisonette to be let as furnished as defined in the Rent Restriction Act.



PULPIT, ST. WILFRED'S, BRADFORD.
TEMPLE MOORE & MOORE, Architects.



HOTEL DES BALANCES, LUCERNE, formerly the Rathaus.

Painted Houses at Lucerne.

By Horace Wyndham.

One of the most picturesque and unique features of the older portions of Lucerne is to be observed in the number of " painted houses " that adjoin the two mediæval bridges, the Kapell-Brucke and the Spreuer-Brucke. Others are to be seen along the banks of the sparkling Reuss and in the crooked thoroughfares near the Kornmarket. Very few of the designs, however, are as old as they look, for the great majority of them have been skilfully restored by modern artists within the last quarter of a century. The work was very necessary, since the ravages of time and wind and weather had played havoc with the originals. Still, every care has been taken to reproduce as far as possible the effects which Holbein and his assistants originally created.

No visitor to Lucerne can wander across the old wooden bridges that span the lake in an oblique direction from the railway station to the hotel-studded quay-side without pausing to observe their curiously painted roofs. On that of the Kapell-Brucke, for example, are depicted 154 scenes of Swiss history, and outstanding incidents in the lives of St. Leodar and St. Mauritius, the patron saints of the city. As each member of the Town Council volunteered to bear the cost of one fresco, he naturally took care to choose a subject connected with his own family.

The other wooden bridge, the Spreuer-Brucke, has its roof embellished (?) with a panorama of the " Dance of Death." As one looks at it one is instinctively reminded of Longfellow's poem on the subject. The pictures were painted by Caspar Meglinger in the year 1626, the cost being met by a body of pious citizens, who regarded the series as a valuable object lesson. It is certainly a hideous one, and calculated to make spectators feel uncomfortable. The Kapell-Brucke and Spreuer-Brucke frescoes are not of any historical interest, since they date merely from the seventeenth century, long after the bridges themselves were built. Nor was the work particularly well done, as it had to be touched up by other hands in the following century.

The walls of Lucerne's painted houses are generally of rough cast or cement, coloured with either mauve, saffron, blue or yellow, and the other tints on which Holbein and his brother artists loved to exhibit their skill. As a rule, the subjects of the various frescoes are intimately connected with the legendary history of the town. Thus, William Tell and other national heroes figure on many of them. Sometimes an allegorical group is depicted ; and in a number of cases inspiration has been drawn from the Old Testament. Among the Biblical subjects employed are the story of the Prodigal Son and the Expulsion of Adam and Eve from the Garden of Eden. When the building happens to be a " gasthof," or inn, the decorative scheme commonly adopted is one that shows the chance visitor what he may expect in return for his patronage. For this purpose gargantuan barrels of wine and bunches of succulent grapes, together with huge cheeses and loaves of bread, often inspire the artist's brush. There is one tavern in the Furren Gasse with a scroll of flowers and foaming tankard of beer painted on the wall above the window of a room where Richard Wagner often sat and enjoyed himself with his companions ; and in the adjoining parlour are a number of well-executed drawings of revellers carousing, while a rubicund Boniface smiles upon them. Near at hand is a grocer's shop on the façade of which are a number of elves and goblins. One is carrying a chest of tea, and another is playing with a packet of sugar.

A picture of a bear is very often seen on the walls of the old houses in Lucerne. This is because of a popular legend concerning a bygone saint who lived in the Tyrolese mountains with a bear for his companion. According to the accepted version of the story, St. Romedius (as its hero is known) was once riding through the country on a mule. Being hungry, he tied up his steed and entered a cottage for the purpose of obtaining food. While the holy man was thus engaged, a wandering bear (being also hungry) came along and ate the mule. Thereupon the Saint, who appears to have understood the language of bears, preached the animal a sermon on the iniquity of devouring what did not belong to him. This is said to have filled Bruin with such remorse that he promptly offered to take the place of the departed quadruped.

St. Romedius accepted the offer, and, heedless of the fact that his companion might get hungry a second time, set off with the bear to a cave in the mountains. Here they lived happily together for several months, until one day the Saint fell asleep in the sun, leaving the faithful bear to keep guard. While he slept, a fly settled on the bald head of the holy man. Shocked at such sacrilege, Bruin brought his paw down on the fly as a gentle hint not to trespass. Unfortunately, he also brought it down on the skull of his

A CHARACTERISTIC PAINTED HOUSE AT LUCERNE.

master. The result, as might be imagined, was one saint less in Switzerland.

So much for the story, the features of which are preserved on the walls of various houses in Lucerne and the neighbouring villages. It is also a specially popular subject in the Tyrol district, as St. Romedius is said to have flourished there.

Several of the best specimens of Lucerne's painted houses are to be met with in the Hirschen Platz. Conspicuous among them is the Hotel Hirschen itself, which was redecorated in 1890. Another to be noted is the Haus Bossard, with oriel windows and turret spire and an elaborately painted façade. The ornamental scroll work across the windows shows, on the right-hand side, a number of children with the tools of agriculture and the weapons of war; while on the right of the tower is a hunting and fishing scene. The grilles over the windows are modern but well-executed copies of earlier work. With considerable skill the left-hand windows of the three upper storeys have, by means of a simple fresco, been grouped in such a manner as to appear single double windows. This breaks the monotony which would otherwise have been caused by three equidistant windows in line with one another. The pattern of the frescoes is largely a reproduction from a building in the Kapell Platz. Some three hundred years ago, when the walls of the "Haus Bossard" required repair, the citizens of Lucerne were public-spirited enough to subscribe funds for the purpose, and the Town Council also gave the then owner permission to take as much stone as he wanted from the municipal quarry. Towards the middle of the eighteenth century the building became the residence of the Papal Legate in Lucerne; and in 1774 it was thoroughly restored. About twenty years later the coats-of-arms on the oriel tower were destroyed by the French Generals, who apparently disapproved of such non-republican devices. After this the house fell into sad disrepair, and it was not until 1880 that Herr Bossard came on the scene and put the building once more in good order.

In restoring his property Herr Bossard's chief aim was to reintroduce the decorative pattern which the elder Holbein and his sons designed with such excellent effect. Certain modifications, however, were necessary. Thus, in the second storey there is a reproduction of the charming "Ring Dance," while the Tuscan pilasters have medallion portraits added to them. Then, again, in the top storey, where Holbein originally put three figures of Old Age, there is now a fourth figure of a man pulling down a pillar and himself along with it. This is meant to imply the artist's opinion that the Lucerne vandals, who deliberately destroyed the city's ancient walls and buildings some eighty years ago, were injuring themselves. With reference to this matter, the municipal authorities have more than once shown themselves to be something of vandals with little respect for the past. About sixty years ago they actually went so far as to daub the ancient and picturesque Rathaus itself with a hideous coat of plaster and cover up the historic paintings on its surface with fresh designs.

One of the finest examples of Lucerne's "painted houses" still standing is furnished by the "Gasthaus zu Pfistern," adjoining the steps of the Kornmarket. This belonged to the Guild of Bakers, the members of which had the walls embellished with their coats-of-arms in the year 1609. On the white background is painted a spreading vine, from the branches of which hang the coats-of-arms, with representations of sacks of flour, drinking pots and loaves of bread. At the side is an inscription, giving the names of the original owners of the house and of the artists who restored the frescoes. Near at hand is another building on which is painted a domestic scene. The subject of this is a Swiss soldier returning from the wars and being welcomed by his family. On either side, above a bracket dated 1476, stand two mediæval warriors carrying double-handled swords. A second "Gasthaus," that formerly belonged to the Guild of Butchers, has a couple of life-sized figures of a sixteenth-century butcher and a fisherman, with axes and nets. Next door is an apothecary's shop, with medallions of Æsculapius and Paracelsus, below which are bundles of medicinal herbs and a group of children fighting dragons and crocodiles. This is evidently meant to be symbolical of the fashion in which Science and Youth can combat Disease. The artist has also worked into the decorative scheme of the house front the family crests of its first occupants.

Another Lucerne house, well worth visiting on account of its frescoes, is the Hotel Waage, in the Wine Market. It is a house with a history of rich tradition. Here, in 1389, stood the Town Hall. In 1503 it became the School House, and in 1519 it was a tavern, known as the "Inn with the

HOTEL METZGERN, LUCERNE (built 1529).

Red Doors." Some sixty years later the tavern gave way to the Guild of the Saffran. As such it continued until 1836, when it was rebuilt as the Hotel Waage, now better known as the Hotel des Balances. On the frescoed walls are depicted figures of Justice and her Scales, and a group of men at dinner; and just under the roof marches a military procession of mediæval warriors. Before the main entrance is a fountain, with a statue of St. Maurice, and in Gothic niches below are armed knights keeping watch and ward over the water that has spouted continuously through its dragon pipes since the year 1481.

The Tyrol district, however, is probably the richest in painted houses. Almost every little village has at least half a dozen. In one place, called Axams, there is a house with six large frescoed panels on the walls. The central panel, which is dated 1638, bears the inscription in German, a rough translation of which may be rendered :—

> "Ah, God! What is it that we children of men do ?
> We build houses wherein we are not safe ;
> Yet where we might be safe for ever
> We build so little."

The lower panels have heraldic devices, and the three upper panels show the Virgin and Child between two bishops. Other Tyrolese villages with good examples of similarly decorated houses are Rattenberg, Lans, Umhausen and Schwaz.

At Innsbruck the most famous building of this sort is the Furstenburg, or palace of Count Frederick. Underneath the carved Gothic balcony are life-sized figures of the Emperor Maximilian and the armorial bearings of the different provinces which he ruled. The façade of the Rathaus has painted on it emblematic figures of Good Fortune, Honesty, Prudence, Industry, and other estimable virtues.

Correspondence.

R.I.B.A. Council Election.

To the Editor of The Architect.

Sir,—We hear, on excellent authority, that our sportsmanlike Unification friends are making various statements to the effect that the Council election of a year ago was won by underhand and reprehensible methods of procedure. We can assure all members of the Institute who are interested in the matter that any such statements are utterly untrue. Irrefutable proof that the R.I.B.A. Defence League gave the then Council of the Institute due notice of the League's aspirations and activities is proved by the letter of the joint hon. secretaries, Mr. Sydney Perks and Mr. George Hubbard, that appeared, on August 27, 1921, in the "Journal of the Royal Institute of British Architects."—Yours faithfully,

Alfred W. S. Cross, Chairman.
George Hubbard.
H. D. Searles-Wood.
Sydney Perks.
On behalf of the R.I.B.A. Defence League.
45 and 46 New Bond Street, W.
May 18, 1923.

To the Editor of The Architect.

Sir,—I am afraid that Mr. Paul Waterhouse's letter in a recent number of The Architect will have rather more notoriety than he, as President of the Royal Institute, desires.

The present writer has had little experience of the R.I.B.A. elections, but he ventures to hope that such a letter is unique, and that an indiscretion of this kind will never be repeated. Unfortunately, the sentiments expressed in Mr. Waterhouse's letter ring very hollow, as we cannot set aside the fact that the President publicly subscribed to the Emergency Committee's circular, dated April 21, *i.e.* whilst he occupied the presidential chair. The President, therefore, publicly identifies himself with a self-appointed body of individuals whose avowed object is to discredit the Council which he is supposed to represent, a position at once abnormal and morbid. To a plain man it would seem to be an abuse of Mr. Waterhouse's prerogative as President of the Royal Institute.

"Nous Verrons."

Hexham Abbey Restoration.

To the Editor of The Architect.

Sir,—I notice there is an appeal for funds for the repair of Hexham Abbey made in your issue of May 4.

Can you let your readers know whether the Society for the Protection of Ancient Buildings and the Incorporated Church Building Society have approved the proposals ?—I am, sir, yours faithfully,

Hurst, Berks. J. Sherwood Todd.
May 10, 1923.

[The Society for the Protection of Ancient Buildings informs us that they are in communication with the architect responsible for the repair. As the Incorporated Church Building Society have not been approached for a grant they have not been called upon to give the scheme their consideration.—Ed.]

Professional Help.

To the Editor of The Architect.

Sir,—You will doubtless remember Mr. T. G. Hamper, of the Appointments Department, who for a considerable period was secretary to the Interviewing Boards (for training). Mr. Hamper left the Department when the Interviewing Boards ceased to function in December last and the staff of the Department was reduced.

It has recently come to my knowledge that Mr. Hamper is in considerable distress. He was without an appointment for some time. Eventually he was found a temporary post at less than £3 per week. Being a married man with one child, he is unable to pay his way on this sum, and is financially embarrassed.

Remembering the good work done by him, it struck me that many members of the Interviewing Boards would, if they knew the circumstances, be desirous of helping him over the present difficulties until some suitable appointment, carrying a reasonable salary, can be found.

It is impossible for one to do much, but the combined help of many, however small the amount, would no doubt make a really useful gift and be of considerable service.

I shall be pleased to receive any subscriptions for this purpose, and would undertake to forward the amount subscribed to Mr. Hamper, with an expression of good wishes from the subscribers.

Yours, etc., A. B. S. Fraser,
Captain, late member of the General Interviewing Board.
6 The Approach, Hendon, N.W.
May 22, 1923.

Competition News.

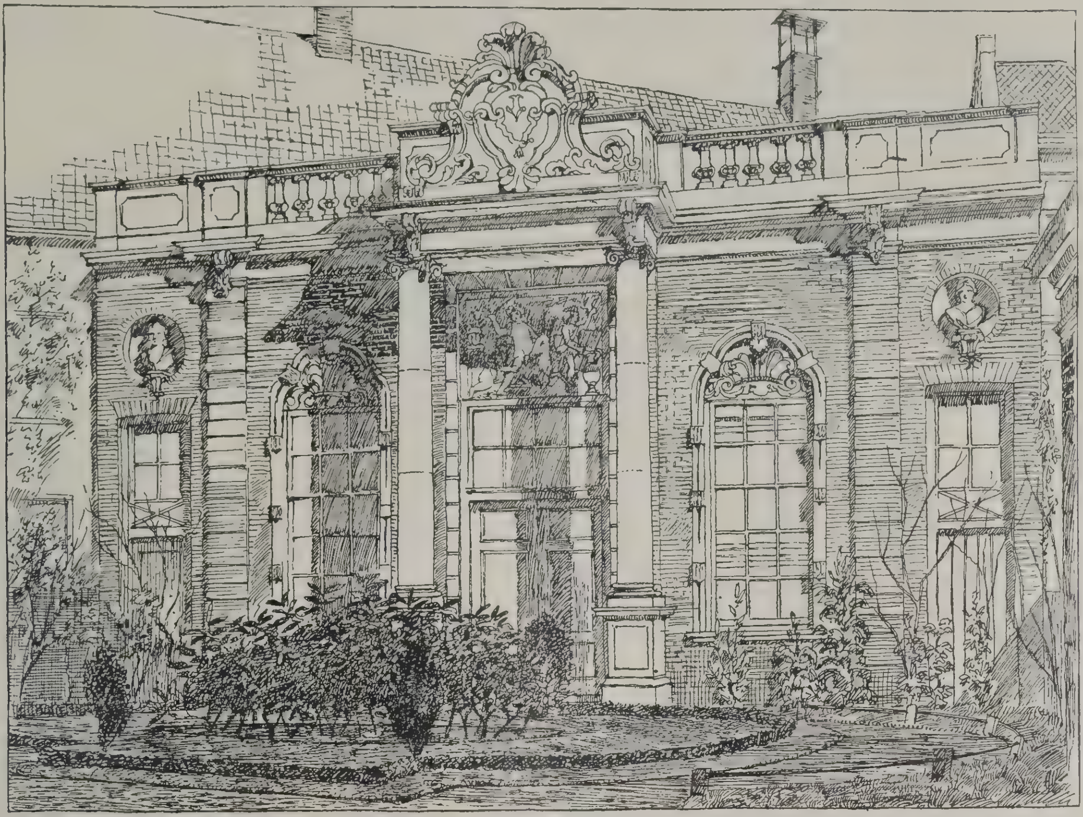
Members and Licentiates of the Royal Institute of British Architects must not take part in the competition for the laying out of land as burial ground at Yeovil, or that for a pavilion at Largs, because the conditions are not in accordance with the published Regulations of the Royal Institute for architectural competitions.

Members of the Society of Architects are notified that the conditions of the proposed Pavilion Competition, Largs, are not in accordance with the regulations, and they are requested not to take part in the competition without first ascertaining from the Secretary that the conditions have been approved by the Council.

A projecting building at the south-east corner of the Manchester Royal Exchange has been sold to a local syndicate with a view to reconstruction. It is proposed to obtain designs for the new structure by means of a limited local competition, for which Professor C. H. Reilly has been requested to be arbitrator.

The Royal Mint proposes to sell at the British Empire Exhibition, 1924, a series of bronze plaquettes illustrative of London as the capital city of the Empire, or of one or more of her architectural features.

It is proposed to invite competitive designs, which should be in the form of models in plaster, and which will be adjudicated upon by the Mint Advisory Committee on Coins, Medals and Seals. The following premiums are offered: One prize of 100 guineas, two of 50 guineas, three of 25 guineas. The committee reserve the right of withholding prizes in respect of models deemed by them to be of insufficient merit to justify their reproduction as plaquettes. The successful models will become the property of the Mint, but a moderate royalty will be paid on sales. The plaquettes, when finished, may be of any shape or size, not exceeding 3 in. square, that the artist may choose, and must show designs on one side only. The plaster models should be twice as large as the intended plaquette. No competitor may submit more than three models. They should be forwarded to the Deputy Master of the Royal Mint, London, E.1, not later than September 30.



OLD HOLLAND. By G. G. Wornum.

Ecclesiastical Dilapidations.

At the present time of writing the "National Assembly" of the Church of England has drafted the second version of an "Ecclesiastical Dilapidations Measure," which is to become a Bill to be promoted in Parliament, revising and amending the Ecclesiastical Dilapidations Acts, 1871, 1872; by which the onerous liabilities under which the beneficed clergy suffer are intended to be relieved. The proposals are to set up a "Diocesan Dilapidations Board" for each diocese, together with joint, inter-diocesan Boards; or, failing such bodies, a "Central Authority," defined by the Measure as "Queen Anne's Bounty." A quinquennial surveyor's inspection is provided for; and Section 20 suggests, on the representation of any incumbent, that buildings considered to be superfluous may be, with the consent of the patron of the living, demolished, and any sum realised by sale of materials added to the augmentation of the benefice. An important sub-section here provides that if, in the opinion of a surveyor, the cost of demolition will exceed what is to be had for materials. the incumbent is to be no longer liable for dilapidations, In the event of such buildings being dangerous, and the cost of demolition being likely to exceed the sum to be had for materials, they may be either (1) removed, or (2) repaired, at the cost of the Central Authority, such cost to be a charge on the incumbency.

The "Central Authority," otherwise "Queen Anne's Bounty," it is provided, shall open accounts for each benefice, to be called the "Structural Repairs Account" and "Ordinary Repairs Account." Inspection by the surveyor at the opening of an incumbency resulting in schedules of structural or ordinary repairs, the incumbent, or (and) the representatives of the late incumbent, will be required to execute such repairs, as formerly, but the liability to be to the Central Authority, which is to make a Rating Order extending over the five-year term of inspection, to be entitled the "Repair Rate." The Central Authority may make grants, or lend money, in case of necessity; such sums, when loans, to be a charge on the benefice.

Section 44 declares "it shall not be lawful for an incumbent to make any additions to or alterations of the buildings of a benefice without the sanction of the Diocesan Dilapidations Board and the consent in writing of the patron." If any incumbent shall make such additions or alterations, the buildings are to be reinstated in their former condition. This has a very intimate bearing upon the history of vicarages and rectories. Too frequently the incumbents of to-day suffer from the social conditions of past times, when the clergy were more easily circumstanced than they are now; having the upkeep on their hands of buildings which are not, and cannot be, half occupied; but which hitherto have been liabilities necessarily to be accepted with the living.

An important provision, which if only embodied in an Act of Parliament will be of much moment to rectors and lay rectors, is to be found in Section 57. It abolishes the liability of a rector, who is such only by reason of his incumbency, for the repair of the chancel of his church; which in future is to be maintained in all respects as is the remainder of the church. A lay rector (commonly the landowner) may compound with the Central Authority on payment to it of such a sum as, having regard to the then condition of the chancel, "may be considered reasonably sufficient to provide against future repairs" for which the lay rector would otherwise be liable.

The whole question of Ecclesiastical Dilapidations and the housing of the clergy is a thorny and difficult one, not easily to be solved, centring as it does on ways and means. The attempts at a solution seen in the Measure appear to be a somewhat clumsy and halting affair in which the suggested Dilapidations Board, the Bishops, Queen Anne's Bounty, and the Ecclesiastical Commissioners all move in not very well-defined orbits, and with overlapping authority. Only one thing appears with any certainty to emerge from it: that an immense amount of office-departmental work will be created. Those responsible for the Measure must, we think, try again before they can approach Parliament with much expectation of approval.

Industrial Lighting.

At a meeting of the Royal Society of Arts, held on May 16, a paper was read by Mr. Leon Gaster (Editor of "The Illuminating Engineer") on the subject of "Industrial Lighting and the Prevention of Accidents." The paper was a lengthy one, and from it we give the following extracts:

The first interim Report of the Departmental Committee on Lighting in Factories and Workshops issued in 1915 showed that accidents occurred most frequently during the dark winter months and that in almost all the industries studied the accident rate by night was considerably higher than that by day; the average increase for all industries was 29 per cent. for all forms of accident and as much as 71 per cent. for persons falling. In the case of docks, where this type of accident is frequent, the increase was 102 per cent.

Mr. Gerald Bellhouse, H.M. Chief Inspector of Factories, has remarked that of accidents reported to inspectors approximately two-thirds are not due to machinery at all, and of the remainder only a third can be ascribed to absence of guards. Predisposing causes of accidents are broadly classified by Mr. Wilson as (*a*) those due to the work, including such causes as fatigue, rate of output, etc., (*b*) those due to the conditions under which the work is done, *e.g.*, lighting and temperature, and (*c*) those due to the personality of the worker.

One finds also in practice that the same causes that result in accidents involving bodily injury or prejudice to health are almost invariably also responsible for damage to material, spoiled work and mistakes, for which the worker may be blamed, but for which he is often not strictly responsible.

In the past too little attention has been given to the human element. In most industries there are opportunities for making small modifications in the routine of the work such as may enable them to turn out more in a shorter time and with less fatigue. Such experiments, be it noted, are not in any sense an attempt to "drive" the worker, but rather an attempt to lighten his labour, to remove unnecessary interference with his work and eliminate possible sources of danger.

All these facts are becoming more generally appreciated and there has been a material improvement in industrial lighting during recent years. One of the chief tendencies has been the provision of high general illuminations in place of individual "drop-lights," and in many factories it is now usual to find values up to 8-10 foot-candles, far exceeding those customary in the past. In such cases employers and workers unite in agreement on the greater comfort and ease of working, and it is significant that when improved lighting is once introduced no one is ever content to return to the old conditions. Good lighting, however, is not only a matter of providing sufficient numerical values of illumination. It is essential that other conditions, such as absence of glare and freedom from troublesome shadows, are also complied with.

Photometric measurements, which have proved so valuable in the study of artificial illumination, have also been applied with good results to tests on natural lighting during recent years. When one considers that probably three-quarters of the work done in factories in this country is performed in daylight the need for the study of daylight conditions is obvious. The design of a modern factory is, indeed, largely governed by considerations of maximum admission of daylight. Daylight varies enormously in intensity at different times of the year and at various periods of the day, and these variations have been mapped out by systematic photometric measurements so that one can predict the *average* value that may be expected at any time. Naturally, special circumstances, such as fogs, etc., may lead to exceptionally low values, and it might at first sight appear that daylight is so variable and uncontrollable that measurements are of little value. Nevertheless, such measurements have proved in practice useful in various ways.

A most significant result has been obtained in a series of investigations conducted for the Industrial Fatigue Research Board in the silk-weaving, fine linen weaving and cotton-weaving industries. In these three cases it was shown that the average output by artificial light was respectively 10 per cent., 11 per cent., and 5 per cent. less than by daylight. Evidently, therefore, the conditions of artificial lighting were less perfect than those prevailing during the day, and imposed a distinct handicap on the worker. The exact nature of these imperfections requires further study. It may possibly be found that the much lower value of illumination derived from artificial light, as compared with daylight, is responsible; or it may be that the diffusion of light is less satisfactory, giving rise to inconvenient shadows.

Next it is to be observed that while *absolute* measurements of daylight illumination may be somewhat difficult to interpret, owing to its extreme variability, *relative* measurements, connecting the illumination on the worst lighted place in a room with the total unrestricted daylight illumination out of doors (the "daylight-factor"), have a very direct value in dealing with access of light into buildings. Much work has been done on these lines during recent years. Valuable and frequently quoted conclusions were set out in the report of the Joint Committee of the Illuminating Engineering Society on the Natural Lighting of Schools in 1914. Among other recommendations it was suggested that windows should be designed that the darkest desk in a schoolroom should not receive less than 0·5 per cent. of the unrestricted illumination from the complete sky-hemisphere. Useful work is also being done at the National Physical Laboratory, where a special experimental building for the study of daylight illumination has been erected. Architects and others could doubtless obtain much useful guidance by making use of the facilities which the laboratory affords for predeterminations of daylight-access in new buildings.

Many measurements of daylight have been recorded in the reports of the Home Office Departmental Committee on Lighting in Factories and Workshops. A useful review of the whole subject was also given in a paper by Messrs. P. J. Waldram and J. M. Waldram before the Illuminating Engineering Society this year. The illumination derived from a complete hemisphere of sky out of doors may attain very high values, exceeding 5,000 foot-candles, and direct sunlight illumination is still more intense. Mr. Waldram found that people in offices are apt to complain of insufficient light when the illumination on the work is less than 0·2 per cent. of the value derived from an unobstructed hemisphere of uniform sky, which under the best conditions would mean an actual illumination of about 10 foot-candles, but as a rule considerably less. We may safely assume that the daylight illumination in an office should not be less than that considered necessary by artificial light, say, about three to four foot-candles; indeed, owing to the fact that the eye is adapted to a higher order of illumination by daylight it usually requires more. Thus, in some American codes it has been laid down as a general principle that natural illumination for a process should be *twice* that recognised as desirable by artificial light.

A question that deserves some study is the treatment of the twilight period, when daylight is failing and artificial light is about to be substituted. It is possible that the demands of the eye are accentuated by the fact of one's consciousness that the daylight is becoming progressively less. One finds that people sometimes desire the substitution of artificial light when the actual value of daylight illumination in foot-candles is still fairly high. In practice a mixture of natural and artificial light is usually regarded as objectionable; possibly the transition period might be dealt with by the use of artificial daylight units.

Measurements of daylight have proved extremely valuable in connection with ancient light cases. A significant tribute to their value was paid by the judge in a recent case of this kind in Bradford, where the record of tests made by Mr. Waldram had a material influence in determining the decision. The more difficult problem of *predicting* conditions of natural lighting in buildings prior to erection is now receiving attention and distinct progress has been made.

There is, however, one factor which considerably affects all predictions of daylight illumination in buildings—the condition of the glass. When a factory has a very large window area cleaning may become an expensive item. But the encrustation of windows with dirt, which materially diminished the daylight available, should be avoided; and in general a manufacturer will find that regular cleaning is fully compensated by the gain in illumination. Some measurements of the loss in light have been made. At a recent meeting of the Illuminating Engineering Society specimens of glass were shown absorbing from 25 to 60 per cent. of light, according to the amount of dirt. Windows surely ought not to become so dirty that more than half the light striking them is absorbed.

In the case of artificial lighting appliances the need for periodical cleaning and maintenance is, if anything, even more important than in the case of windows. Tests have shown that a few weeks of neglect of lamps and fittings in factories may lead to a diminution of 30 per cent.; in planning installations it is therefore wise to allow a margin above the estimated value of illumination, so as to allow for deterioration.

Wherever the conditions of lighting have been carefully studied the tendency during recent years has been to advocate a generous value of illumination, the cost of which is almost invariably small in comparison with the wages of operators. (In a number of large factories which have recently come under the writer's notice the proportion was only 1 per cent.) A striking instance of this tendency to recommend higher values of illumination is to be seen in the account of a survey of lighting conditions in post offices, made by the United States Public Health Service. It was found that the higher the illumination, up to a certain point, the more rapidly was the work performed. Those having normal vision worked most rapidly under an illumination of between 8 and 10 foot-candles; those with eye defects showed less fatigue when working under higher intensities than when working under lower intensities. The provision of 10 foot-candles on the working plane would, according to the methods suggested, require about 2 watts per square foot of floor area. Great importance is attached to avoidance of glare and the specification of the glassware for use in post offices is directed to securing a brightness of not more than 2 c.p. per square inch in the lighting fittings.

This report shows that the requirements in the Home Office Departmental Committee's reports, while intended to remedy cases in which lighting is clearly inadequate, are quite moderate in view of conditions to be found in some modern installations. The conditions can be readily met by the aid of modern appliances and methods.

Ideal industrial lighting can be only broadly defined. It should enable work to proceed by night with the same ease and convenience and safety to workers as exist under the best daylight conditions; indeed, in view of the very variable nature of daylight one might hope to obtain better conditions in some cases.

General experience, aptly summarised in reports of the Home Office Departmental Committee, indicates that for ideal requirements there are four main conditions to be satisfied:—(*a*) sufficient illumination, (*b*) constancy and uniformity of illumination over the working area, (*c*) the placing and shading of lights so as to avoid inconvenient extraneous shadows on the work. There will also be special conditions to be fulfilled arising from the peculiar nature of any industrial process.

It will naturally take some time before such conditions are completely understood for all industries. The best course is doubtless to group together certain industries having broadly similar requirements, to study them in detail, and to see how far the experience so gained applies in other cases. Hence the Home Office Departmental Committee acted wisely in first concentrating attention on the engineering, clothing and textile industries.

Legislative measures require very careful consideration. One might justly hesitate to legislate on many matters in which *recommendations* can confidently be made. The aim should be to prevent any serious abuse of light, and yet impose no hardship on the manufacturer. If too exact and detailed, a code becomes difficult to enforce without becoming a source of annoyance; if too vaguely worded, its interpretation may give rise to differences of opinion. An ideal measure is one which employers and workers readily accept as being made in their joint interests. Educational propaganda is extremely desirable in order to make the aims of official reports generally understood and the nature of their recommendations familiar.

Experience in the United States, where codes of industrial lighting are now in use in seven different States, has been broadly similar to our own, and the "codes," although somewhat more detailed, are based on principles similar to those adopted by the Home Office Committee. Some general recommendations have also been made by the Illuminating Engineering Society in Germany, and a committee working under the Minister of Labour in France is now devoting attention to industrial lighting. It may be noted that a committee was formed by the French Government in 1912 in order to study these problems. The work was unavoidably interrupted by the war, but the investigation is now being taken up afresh.

Another instance of the spread of interest in the subject is afforded by the work of the International Labour Bureau of the League of Nations at Geneva. Dr. L. Carrozi, who is associated with this department, has in preparation a comprehensive report on industrial lighting, which will be awaited with keen interest. This department has collected much evidence on other points of considerable interest to those concerned with factory management, such as the beneficial results of periodical rests, enabling the worker to recuperate and lessen industrial fatigue, and the careful selection of those entering various trades with a view to ensuring that their physique and general health is such as to enable them to do the work efficiently and without ultimate prejudice to their well-being. Naturally, this last point is of special consequence in those industries which impose a somewhat severe strain on the eyes.

There are many matters which have reached a stage when they might well form the subject of international discussion, and a step in this direction was taken by the International Illumination Commission at its first Technical Congress in Paris in 1921, when an international technical sub-committee was appointed to review the question of industrial lighting. While each country has its own methods there is much "common ground" in industrial lighting, and it is conceivable that in the future these generally accepted principles will be embodied in an international code of industrial lighting.

In the meantime it is a matter for gratification that the subject of industrial lighting has been studied in such a thorough and scientific manner by the authorities in this country, and the judicious and sympathetic manner in which the Home Office has dealt with this complex problem should receive general recognition. The application of the chief conclusions conveyed in the three reports of the Departmental Committee on Lighting in Factories and Workshops involves no hardship to workers or employers, and these principles should be readily accepted for their mutual benefit. It is to be hoped, therefore, that in the near future they will be embodied in the legislation of this country relating to factories, and that light, heat and ventilation will be dealt with jointly as essentials to health, safety and efficiency of work.

OLD HOLLAND. By G. G. WORNUM.

A Library for Town Planners.

The work of the town planner in the present day is so wide in its scope that it is of the utmost importance that every practitioner should have the fullest opportunities for studying the development of our cities in the various branches of economics, hygiene, education, recreation, or administration.

The art of town planning cannot ignore the historic traditions under which our great cities have grown up. As illustrating both good and bad these are an essential factor in the study of city life and organisation. The material for such studies is plentiful in both the written and graphic forms, but it is scattered through various museums and libraries involving loss of time in the search for such knowledge. Ever since the establishment of the Town Planning Institute in 1913 it has had in view the formation of a compact but comprehensive library dealing with the various aspects of this subject, so that its members and others would be able to study them without having to disentangle the material elsewhere. Only a beginning had been made, but recently an exceptional opportunity arose when it became possible to acquire on very favourable terms the collection of maps which Mr. Brook Kitchen had spent many years in gathering together. The Institute decided on the purchase, as the collection will form a most appropriate nucleus for the library it has in view, comprising, as it does, maps and views of places in all parts of the globe, of all periods within the last three centuries.

A dance in aid of the funds required for this purpose was held on May 3, by arrangement, at the R.I.B.A. galleries at 9 Conduit Street, W., the decoration of which was the work of talented students of the A.A., while Miss Mary Adshead designed the central feature, a "Jazz" Town cartoon. The works of Mr. W. Walcot which hung on the walls materially enhanced the decorative effect.

The President and Mrs. Lanchester were supported by the past Presidents and Council of the Town Planning Institute.

The future of our cities, their efficiency, amenity and beauty being dependent on the knowledge and skill with which they are handled, depend largely on the efforts of the Town Planning Institute in enhancing its utility as a centre of knowledge and skill, as its membership includes practically all engaged in the art, not only in Great Britain, but also in India and our Overseas Dominions.

"The Architect" Fifty Years Ago.

May 24, 1873.

The Queen Anne School.

It cannot be disputed that the two remarkable designs which have been sent to the present exhibition of the Royal Academy by Mr. Norman Shaw and Mr. Bodley, and which were fully and somewhat freely commented upon in last week's Architect must be accepted, not only as typical works of a new school of English architects, but as a demonstrative manifestation of an earnest and indeed bold protest on the part of the leading men of this new school against that mode which but yesterday was being proclaimed far and wide to be the one true and permanent style of our age at length happily discovered and ascertained. Whether Messrs. Bodley and Norman Shaw, and their *confrères*, are to be supposed still to hold in ecclesiastical design to that Thirteenth Century mode which in non-ecclesiastical work they have thus repudiated, may be more or less doubtful; but it certainly cannot be questioned that the doctrine advocated by Mr. Street of the invariable and infallible applicability of that mode to every occasion is not the belief of the Queen Anne School.

To complete the list of the principal leaders of the new school, the names that have to be given are said to be, besides Mr. Norman Shaw and Mr. Bodley, Mr. Nesfield, Mr. Webb, Mr. Stevenson, Mr. Gilbert Scott, jun., and—let not the reader be too much astonished—Mr. Butterfield, with one more moving spirit, artistic rather than architectural, in the person of Mr. Rossetti. If this list be correct, if all these men are to be counted as seceders from hard academic Gothicism, it would be vain to shut our eyes to the fact that they will not be long without a large following; and, looking at the universal attention and unmistakable approval which appear to be accorded on almost every hand to the two designs above mentioned, as the standards of a new cause, no one must permit himself to be astonished if next year's exhibition happens to show, instead of two, twenty of such ensigns of changing fashion. Even at this moment the question is one that may be asked with no little interest—What is the style in which Mr. Norman Shaw, Mr. Nesfield, or Mr. Bodley would just now design the Law Courts ?—Apparently not in that of the thirteenth century, to say the least.

Varieties.

Lord Crawford and Balcarres has been nominated to succeed Lord Morley, who recently resigned the Chancellorship of Manchester University.

Plans for the erection of 49 self-contained houses in various parts of the city were passed at the last meeting of Newcastle Corporation Town Improvement and Streets Committee.

The Manchester University Council have received a cheque for £600 as a first contribution from the Manchester Society of Architects to the School of Architecture Endowment Fund.

The President and Council of the Royal Academy have purchased under the terms of the Chantrey Bequest the oil painting "The Road: Winter Morning," by Mr. George Clausen, R.A. (Royal Academy Exhibition: Gallery IX., No. 451).

Wath Council has decided to apply to the Ministry of Health for permission to build 62 more houses under the new subsidy scheme of £6 per house, and also for the erection of several shops on the Council's own responsibility, and to advertise immediately for tenders.

Manchester Housing Committee on the 10th inst. approved a scheme for the erection of 690 houses on the Newton Heath and Wilbraham Road estates. These, when complete, will end the Corporation's housing schemes, and the way will be prepared for the private builder.

The Hull Corporation Baths Committee have approved plans and estimates for the erection of 15 ladies' slipper baths, hot air baths, and vapour baths in Beverley Road, at a cost of £5,500; slipper baths and wash-houses in St. Paul's Street, at a cost of £20,500; and cottage baths in Albert Avenue, Hull, at a cost of £8,000.

The General Purposes Committee of the Metropolitan Water Board report that in connection with the completion of the contract for the erection of the Head Office building, the total expenditure incurred amounted to £324,205 5s. 4d., as against specific estimates amounting in the aggregate to £329,492, and that in the case of the provision of furniture, fittings, etc., the expenditure incurred amounts to £29,372 18s. 2d., as against the authorised expenditure of £29,500.

At the annual meeting of the Belfast Cathedral Guild, it was stated that the Board had purchased nearly all the house property in Academy Street, and when the right time arrived that area would be cleared so that the Cathedral would stand in a noble space in the very centre of the city. Some of the delay was due to the deaths of their architects, but the Board had decided to advance at once. They were proceeding with the building of the two great eastern piers and the central crossing. Mr. R. M. Close has been appointed as architect to superintend the work. As a matter of fact the work had actually begun.

The Civic Arts Association has entered into a working arrangement with the British Institute of Industrial Art which, it is hoped, will result in greatly widening the scope of its activities. The committee of the association has been adopted as the Civic Arts Committee of the Institute, and its business will in future be conducted at the offices of the Institute at 16 Grosvenor Gardens, London. Sir Cecil Harcourt Smith will continue to act as chairman, and Mr. Leonard Pomeroy as hon. secretary of the Civic Arts Committee, which will meet as usual to give free advice to all those who desire to consult the association on any matter whatever relating to the civic arts.

The following standard rates of wages for Belfast and district have been agreed to by the Belfast Builders' Association and the Belfast Branch of the National Federation of Building Trades Operatives for the twelve months expiring April 30, 1924: Bricklayers, carpenters and joiners, woodcutting machinists and sawyers, painters, plasterers and slaters, 1s. 7d. per hour; labourers, 1s. per hour; labourers' hodsmen and scaffolders, 1s. 1d. per hour. The working hours are to be 44 per week for the summer period, subject to lengthening if they are lengthened in the building trade in the Manchester district, and 42 per week for the winter period. Satisfactory agreements have also been reached in provincial towns.

Great difficulty is being experienced in securing employment for disabled ex-service men who have been trained in the building trade, and the Government do not propose to revive the scheme. These facts were explained in the House of Commons by Sir Montague Barlow (Minister of Labour), who, in reply to Sir Wm. Davison, said there was no intention of restarting the Ministry's abandoned scheme for training ex-service men as bricklayers and plasterers, and in other skilled branches of the building trade. The scheme for training disabled ex-service men in the building trade was still in operation. The number who had been trained was 4,417, and there were 1,197 under training. About 1,000 men had finished their training in Government constructional factories, and were now awaiting improverships. He was experiencing great difficulty in finding work for the men who had been trained.

Preserving timber with SOLIGNUM at Bush House, Kingsway

All the wooden floor joists, battens, bearers, etc., used in the new Bush Building, Kingsway, are being dipped in SOLIGNUM before fixing

This is the best possible insurance against dry rot and decay

SOLIGNUM

205 BOROUGH HIGH STREET, S.E.1

The Grinnell Automatic Sprinkler and Fire Alarm.

Some remarkable examples of the efficacy of the Grinnell automatic sprinkler and fire alarm in the arresting of serious fires have recently occurred.

Here are a few instances :—

1. A fire occurred on March 16 last on the premises of Messrs. Brooke, Wilford & Co., Ltd., woollen manufacturers, Batley. The Grinnell automatic sprinklers installed on the building went off immediately and the fire was soon out. Damage done, only £22.

2. A fire broke out on March 13 on the premises of John Pelley & Sons, Ltd., woollen manufacturers, of Eccleshill, Bradford. The action of the "Grinnell" was immediate and effective. Damage done, about £20.

3. A fire occurred on February 8 at Messrs. Charles Ashworth & Sons, Ltd., cotton doublers, of Ashton-under-Lyne. The sprinklers worked well, and the damage was limited to £700.

4. A fire occurred at midnight at Messrs. Bolands, Ltd., millers, Kingsend Mills, Dublin, on January 23 last. The first intimation of the fire was the ringing of the alarm, which was heard by the watchman, and the operation of the sprinkler head was perfectly satisfactory. Damage done, only slight.

5. Outbreak at Messrs. Pin Bros., wholesale and retail warehousemen, Dublin, on January 26. The operation of the sprinkler installation was perfectly satisfactory, with the result that no damage was done by the fire.

6. The premises of Messrs. Hayes, Candy & Co., Ltd., Friday Street, E.C., were the scene of an outbreak of fire about midnight on the 7th ult. From appearances the flames obtained a good hold, as they got well into very solid teak counters, but though only one sprinkler head came into operation, it being the only one really near the seat of the fire, it had extinguished it before the fire brigade, who were promptly on the spot, could get into the premises. The owners say : "It seems to us a very strong example of the efficacy of the installation, and we feel it is only right we should pass our opinion to you. There is little doubt that a very serious outbreak was narrowly averted."

The Grinnell automatic sprinkler and fire alarm—manufactured by Messrs. Mather & Platt—has the remarkable record to its credit of over 24,000 fires extinguished with an average loss to the insurance companies, both from fire and water, of only about £60 per fire.

This system is absolutely automatic both in sounding the alarm and discharging water on to the flames. Its value in preventing business dislocation through the spread of a fire is incalculable. Insurance companies allow substantial rebates from fire premiums in the case of premises protected by the "Grinnell" system.

General.

The Adwick-le-Street Urban Council have decided to erect another 300 houses at Skellow.

Mr. J. Graham Fairley, architect, Portobello, N.B., has been awarded a bronze medal for his exhibit in the Salon.

The Leeds Education authority propose to provide a new public elementary school for about 200 children at Middleton.

Mr. E. H. New, Hon. A.R.I.B.A., has been given the honorary degree of M.A. of Oxford, in recognition of his drawings of Oxford colleges.

Mr. G. Wells Carlton, late senior partner of Messrs. Carlton Bros., builders, Leeds, left property valued at £29,825, net personalty £2,895.

Messrs. Chas. Smith & Son, architects, Reading, are inviting tenders for the erection of a proposed Nurses' Home for the Royal Berkshire Hospital.

The will of the late Mr. George Corderoy, the well-known surveyor, 4 Queen Anne's Gate, Westminster, who died aged sixty-three, has been proved at £69,988.

The Manchester War Memorial is to be erected in St. Peter's Square. The City Council last week in coming to this decision authorised their special committee to obtain designs either by competition or otherwise.

The Skipton Urban Council are about to ask for the approval of the Ministry of Health to erect an additional fifty houses on the Carleton Road site. The proposal is subject to the price of the land being satisfactory.

The Board of Management of the Mexborough Montagu Hospital have placed the contract for the enlargement of their institution with Messrs. G. H. Smith & Sons, Ltd., of Mexborough. The contract figure is £21,700.

Mr. T. Pierson Frank, M.Inst.C.E., F.S.I., borough engineer and surveyor at Plymouth, has now been selected as Cardiff city engineer in succession to Mr. E. J. Elford, who has been appointed borough engineer at Wandsworth.

The Chapel on the Bridge at Rotherham is to be restored without delay, it being intended that the building should revert to its original uses. Towards the cost, which may approximate £2,000, there is about £1,000 in hand.

The premises of the Moss Gear Co., Ltd., Aston, near Birmingham, are to be extended at a cost of £7,525 by Messrs. W. Lee & Sons, Ltd. The architects are Messrs. Ingall, Bridgwater & Porter, 147 Corporation Street, Birmingham.

Norwich City Council have accepted the gift by Mr. H. N. Holmes, ex-Lord Mayor, of the old Bridewell, a fourteenth-century building which is a fine example of flint-laced work. In it lived William Appleyard, the first Mayor of Norwich (1403).

Messrs. Slaytor & Co., Leicester, have had their tender, amounting to £890, accepted for extensions to Messrs. James Percival & Co.'s works at North Evington. Mr. A. James was the architect. The quantities were by Messrs. R. E. Carpenter & Son of Leicester.

The Dublin Corporation have accepted the tender of Messrs. H. & J. Martin, of Grand Canal Street, amounting to £57,599, for the erection of eighty-four dwellings of five rooms each on Donnelly's Orchard site. Messrs. McDonnell & Dixon, of Dublin, are the architects.

At the last meeting of Grangemouth Dean of Guild Court warrant was granted to the Scottish Oils (Limited) to build 24 dwelling-houses in a new street parallel to King's Road. The houses comprise four blocks of four houses each and four blocks of two houses each.

Messrs. Berrington, Son & Watney, of Wolverhampton, are the architects for some houses to be erected for the Chirk Rural District Council at Chirk and Glyn Cerriog. The contracts have been let to Francis Roberts & Sons, Trevor, Ruabon, at £5,606 and £4,897 respectively.

Mansfield Town Council are about to submit a scheme for the erection of 300 more Corporation houses under the Government's new scheme to the Ministry of Health, and tenders for 50 houses are to be obtained. Application is to be made for a loan for £70,000 for extensions to the gasworks.

The Registrar of the Diocese of Oxford announces that five surveyors under the Ecclesiastical Dilapidations Act, 1871, are to be appointed—two for each of the Archdeaconries of Oxford and Berks, and one for the Archdeaconry of Buckingham. Applications should be sent to the Diocesan Registry before June 2.

The Hornsea Council have received sanction from the Ministry of Health to proceed with the sea-wall extension. The entire scheme is scheduled to occupy nine months in completing, and will proceed in three sections, if possible to run concurrently. The approximate cost of the contract, which has been secured by Mr. Levitt, a local builder and contractor, is £40,000.

Glasgow Dean of Guild Court, on the 17th inst., considered applications involving a total expenditure of over £73,000. Macfarlane, Lang & Co. (Ltd.) received sanction to make a further extension to their biscuit factory in Wesleyan Street, estimated to cost £32,000. Permission to erect a new Roman Catholic school in Govan, costing £6,000, was also granted.

At a special meeting of the Burton Town Council on the 18th inst., to consider tenders for the widening of Trent Bridge, the tenders ranged from £78,432 to £47,029, and the latter, submitted by the Gray's Ferro-concrete Company of Glasgow, was accepted. The second lowest tender was that of Messrs. Lambrick & Co., of Burton, at £49,928, and an unsuccessful amendment was moved that the work should be given to them.

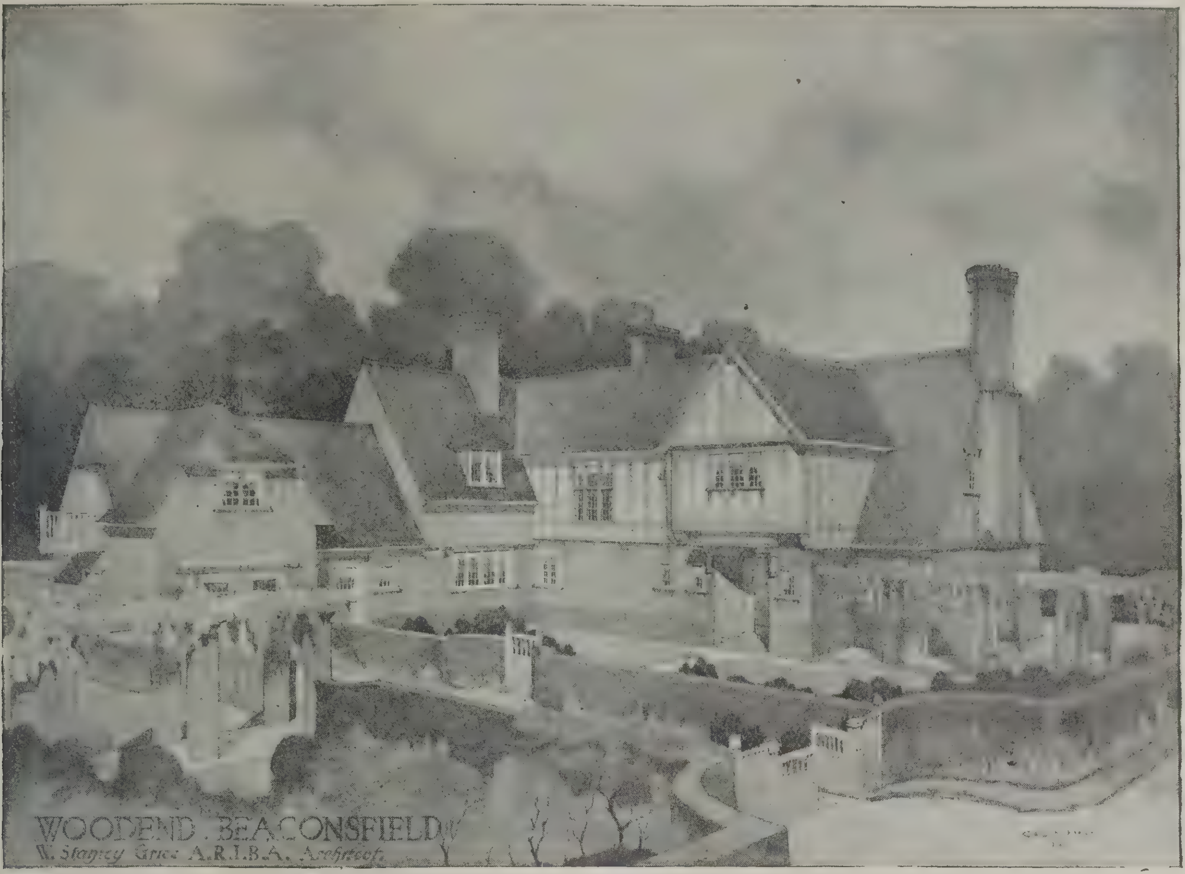
Trade Notes.

In connection with our illustration from the R.A. drawing of the New Almshouses for the Butchers' Charitable Institution, at Hounslow (Mr. W. H. Ansell, A.R.I.B.A., architect), we are informed that the Combination cooking stoves installed in these cottages were manufactured by the Falkirk Iron Co., Ltd., and are known as their "Osborne" Combination. They are particularly attractive in design, and we understand are very efficient cookers.

Messrs. Carter & Howard, horticultural builders and heating engineers, have recently moved to Kingston Road, Raynes Park, London, S.W.20, in order to cope with increasing business and to provide room for still further expansion. The principle of this firm has been to put the best possible material and workmanship into each job. Their new telephone number is Wimbledon 2377.

A massive circular steel treasury door, weighing 20 tons, the first of its kind to be manufactured in this country, formed a leading feature in the Industrial Film taken at Chubb's Works and recently shown throughout England. This door is now sold, and will shortly be fitted as the main strong room entrance of one of the principal banks.

VOL. CIX.—2841. THE ARCHITECT JUNE 1, 1923.


WOODEND . BEACONSFIELD
W. Stanley Grice A.R.I.B.A. Architect.

"WOODEND," BEACONSFIELD. W. STANLEY GRICE, Architect.

Two Useful Books.

We have recently come across two of the most useful books yet published on the theory and practice of Town Planning and Site Development. The first of these is entitled "Towns and Town Planning"* and the second "Site Planning in Practice."† The first is a very noteworthy book, since it contains in the brief space of 150 pages a very complete and interesting account of what town planning means, with a well-written sketch of the history of the principles governing the arrangement of the sites of towns since the earliest times, and is illustrated by excellently reproduced illustrations over 80 in number. A writer can compile a big book which gives little information or, on the other hand, if he knows his subject give the result of an immense amount of investigation and study in a comparatively small space. In the first case he contents himself by displaying what he should have digested mentally, and in the second gives us the concentrated result of his digestion of a problem, and it is the second rather than the first type of book which will prove valuable. A book should not be the photograph of material, but a sketch representing the results of a competent analysis of a subject, and it is to this second category that "Towns and Town Planning" belongs. The analysis of the various Medieval and Renaissance types of planning could only have been written after much detailed study, the results of which are given in clear and luminous writing; nor is the second half of the book, which deals with the modern development of the movement, less complete and explicit. Given as a general view the architectural student will find all he needs know to enable him to exercise his own thought and invention in connection with what is in reality a study the necessity for understanding which is at once simple and self-evident.

Town planning or the suitable placing of buildings in connection with roads and places of communication may be said to be a necessity of the first order wherever the growth of population is rapid or continuous. It was necessary in the Rome of the Cæsars as it is in the modern city, while it was not an essential in the slow growing and often stationary medieval towns and cities. From the time of the Conquest to the age of Elizabeth our centres of population must have appeared to the average man almost stationary, while great plagues, of which the famous Black Death was the chief, frequently actually reduced population. But though the requirements of a great population were until comparatively recently almost absent, the influence of the Italian and French Renaissance was strongly evidenced in the planning of the eighteenth century, an influence only lost during the age of Victorian industrialism. We are to-day but reviving a study which has been contemporary with the development of architecture itself and which is no less important for the general community.

"Site Planning in Practice" is, as the title suggests, a book devoted to one aspect of town planning—that which deals with Estate Development, a subject brought very prominently to the fore by Government housing schemes and the parallel and subsidiary development of private estates. The book deals with the methods to be adopted in laying down the development plan for an estate, the consideration of the various types of building for which provision must be made, and the questions of road making, tree planting, drainage, etc., which arise. It is very fully and well illustrated by 135 blocks, and will be found to be a useful textbook for those who have estates and sites to lay out. The only omission we notice is that of a section which would describe the manner in which some of our poorer built up districts could be improved at comparatively small expense, a branch of study as important as that of the alterations and additions in the case of single buildings.

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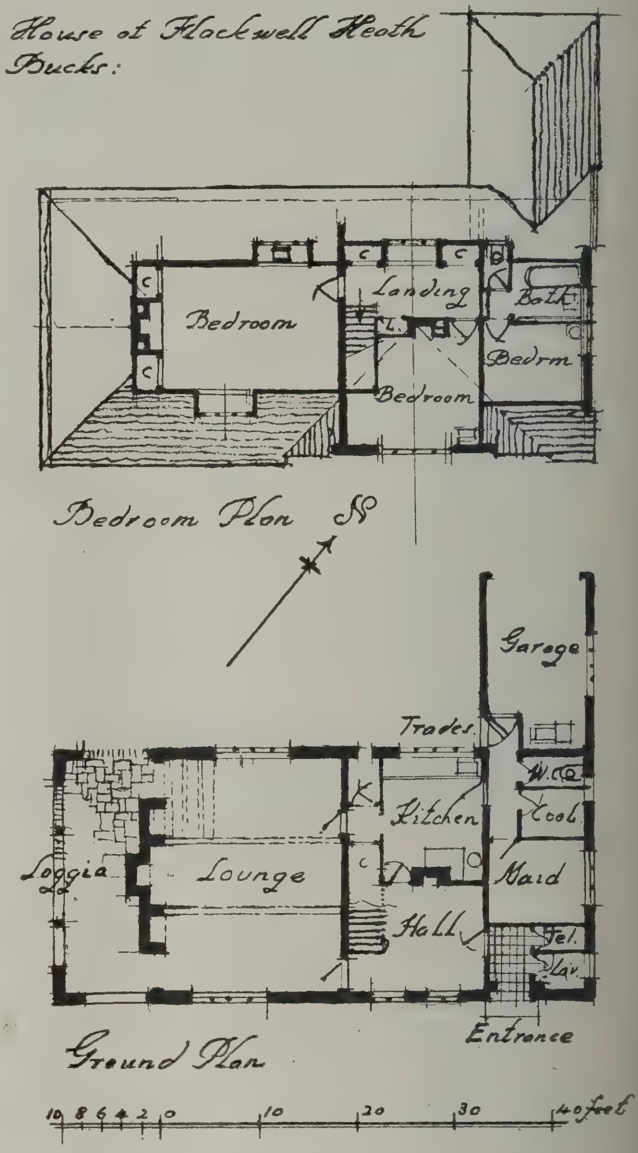
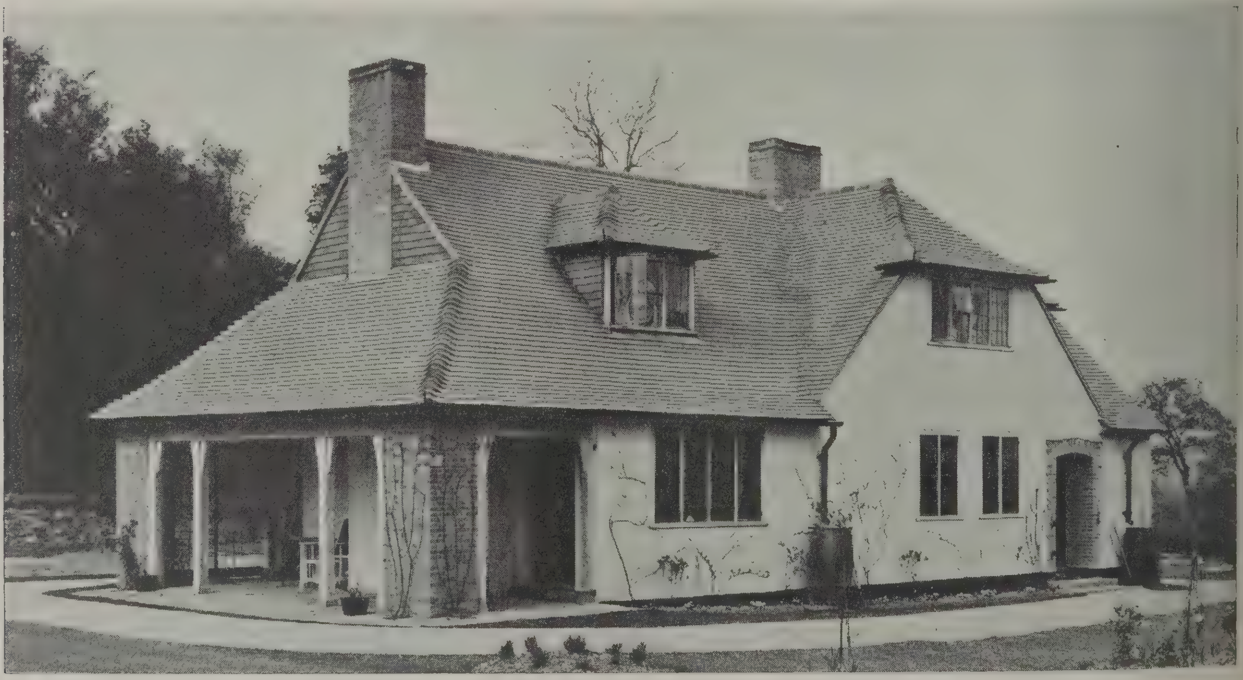
* "Towns and Town Planning," by T. H. Hughes and E. A. C. Lamborn. Clarendon Press. 15s. net.

† "Site Planning in Practice," by F. Longstreeth Thompson, B.Sc. Henry Frowde and Hodder & Stoughton, 1 Bedford Street, Strand.

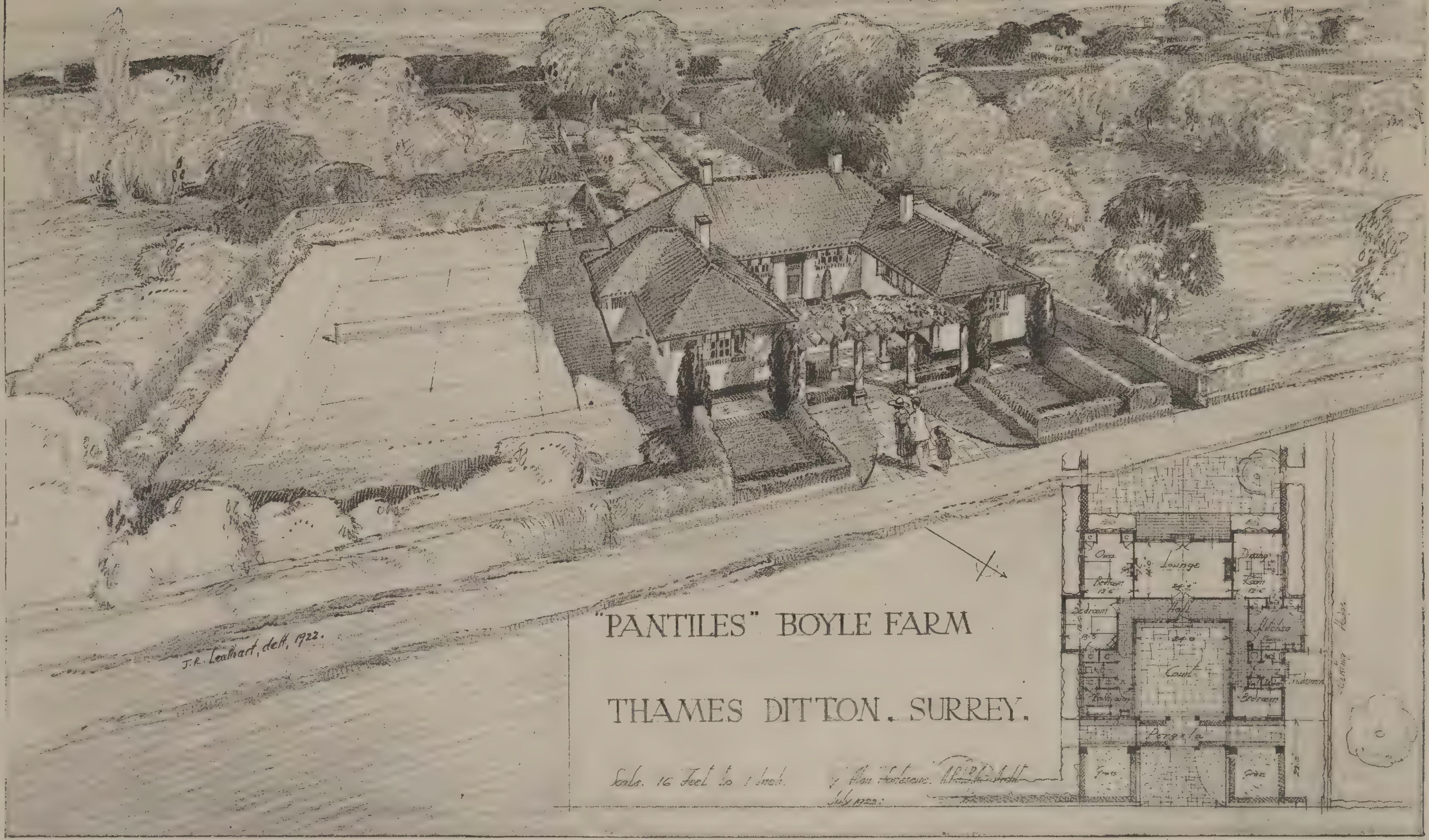
Everything should be done to popularise the study of town planning among architectural students, for many skilled architects are still unaware of the intimate connection between the proper placing of buildings and their architectural effect. It may be said that the simplest of all problems—that of the erection of a house on an open site—will be better done by one who is conversant with the subject of town planning, especially if—as is often the case—a building is erected in proximity to others. We should remember that a large number of buildings which are needed by the world's population must necessarily be so small in extent and so simple in character that only their arrangement in careful relation to one another can produce a pleasing effect.

We should like to see public attention focussed on the importance of filling in the gaps in the outer districts of our towns before forming new settlements beyond them, for as a rule we have spoiled these outer districts for rural uses, while they may still form healthy and convenient dwelling places. The process of "tidying up" is badly wanted in the modern world, and it is in this direction that the services of the town planner may frequently be best employed. But we rather deprecate the building up of a group of specialist "town planners," as the subject is one which all architects should be conversant with and not one which necessitates rare or special gifts and ability. It may be described as being governed by the axioms of common sense as applied to building in its social or human aspects.





HOUSE AT FLOCKWELL HEATH, BUCKS. W. STANLEY GRICE, Architect.



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"PANTILES," BOYLE FARM, THAMES DITTON, SURREY.

G. ALAN FORTESCUE, ARCHITECT.

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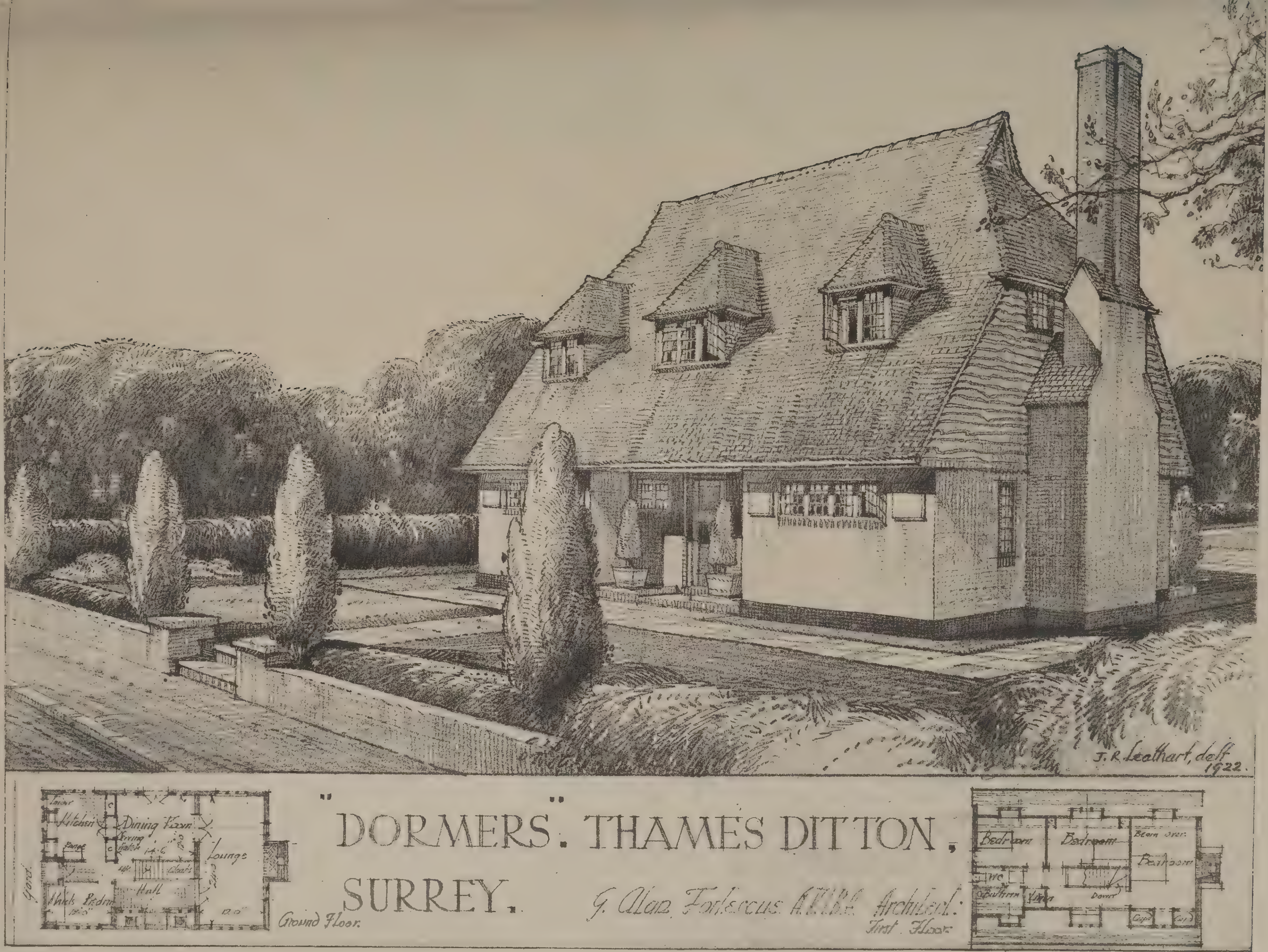

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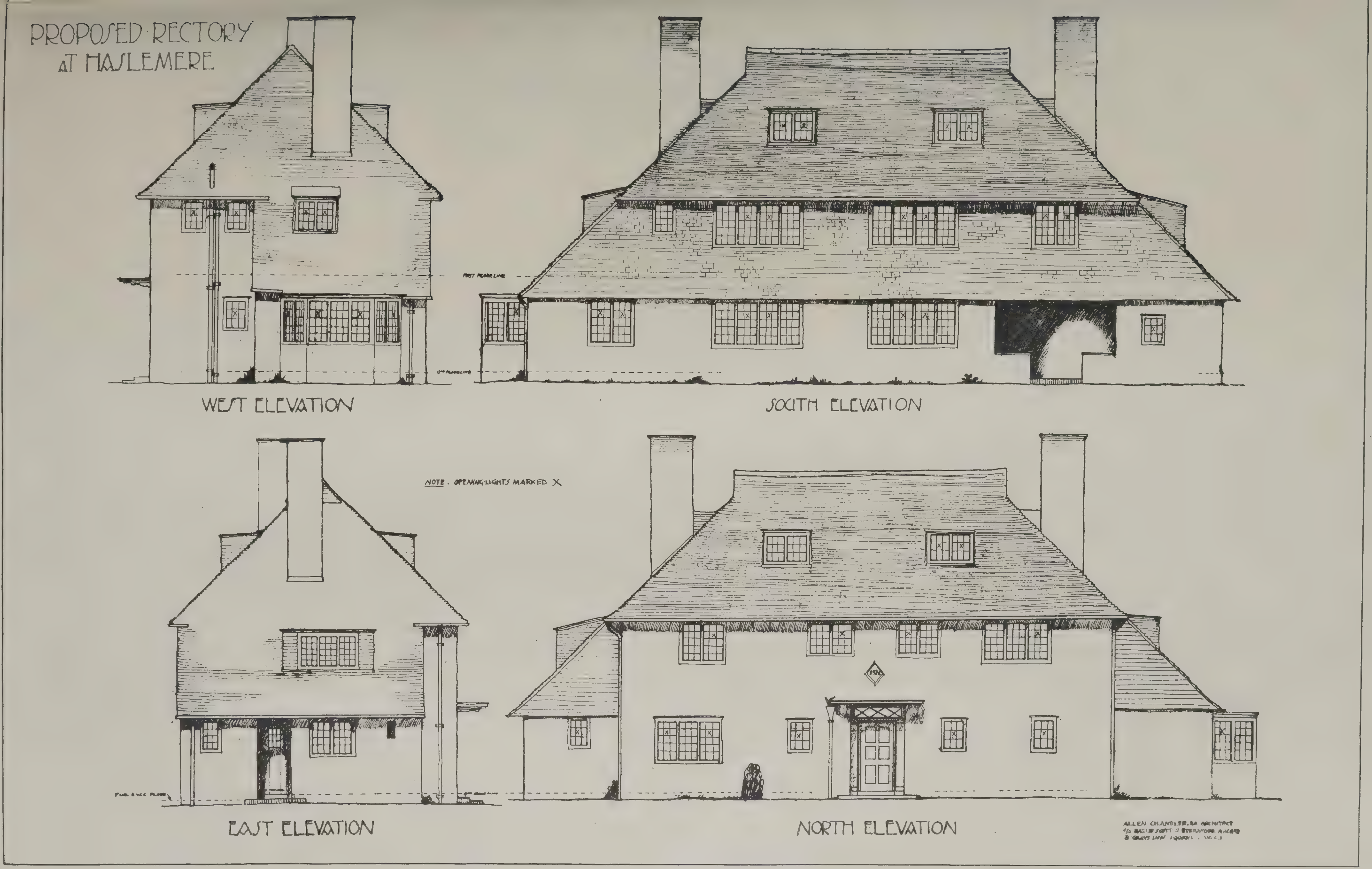

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PROPOSED RECTORY AT HASLEMERE.

ALLEN CHANDLER, of BAILLIE SCOTT & BERESFORD, Architect.

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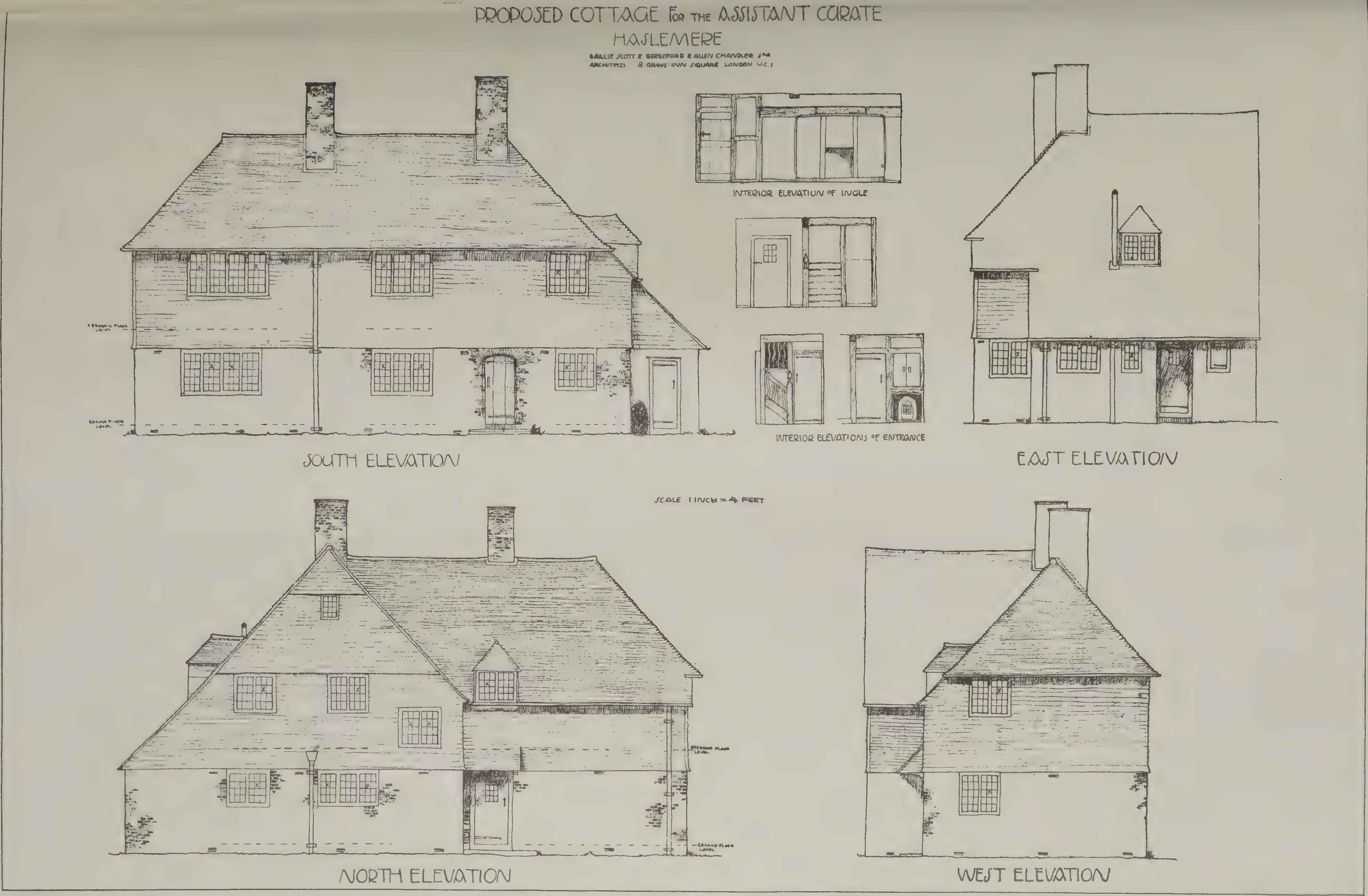
PROPOSED COTTAGE FOR THE ASSISTANT CURATE
HASLEMERE
BAILLIE SCOTT & BERESFORD & ALLEN CHANDLER Jnr
ARCHITECTS 8 GRAYS INN SQUARE LONDON W.C.1
BEDROOM FLOOR LEVEL
GROUND FLOOR LEVEL
SOUTH ELEVATION
INTERIOR ELEVATION OF INGLE
INTERIOR ELEVATIONS OF ENTRANCE
EAST ELEVATION
SCALE 1 INCH = 4 FEET
BEDROOM FLOOR LEVEL
GROUND FLOOR LEVEL
NORTH ELEVATION
WEST ELEVATION

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PROPOSED COTTAGE FOR THE ASSISTANT CURATE, HASLEMERE.

ALLEN CHANDLER, of BAILLIE SCOTT & BERESFORD, Architect.

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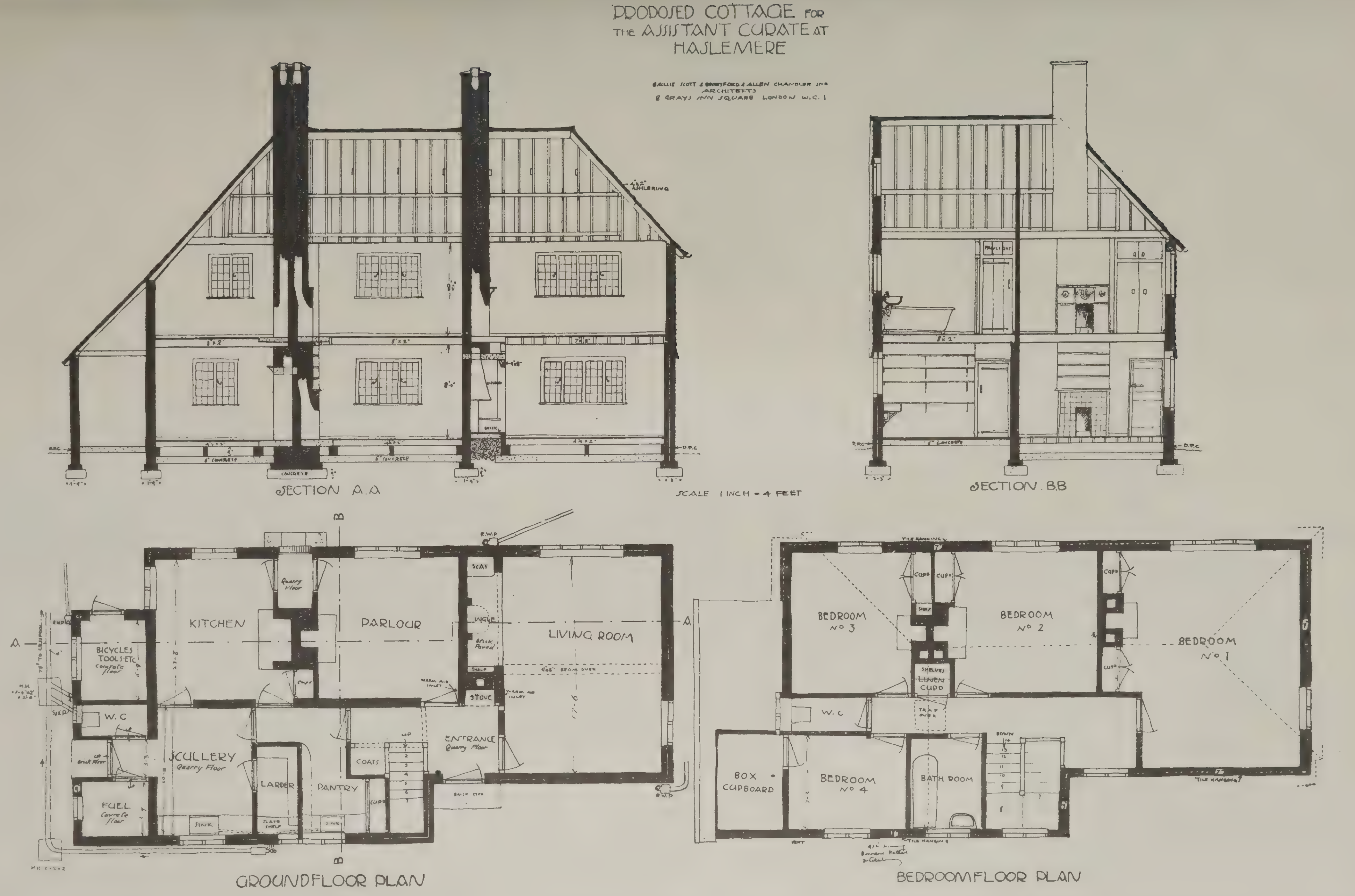

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PROPOSED COTTAGE FOR THE ASSISTANT CURATE, HASLEMERE.

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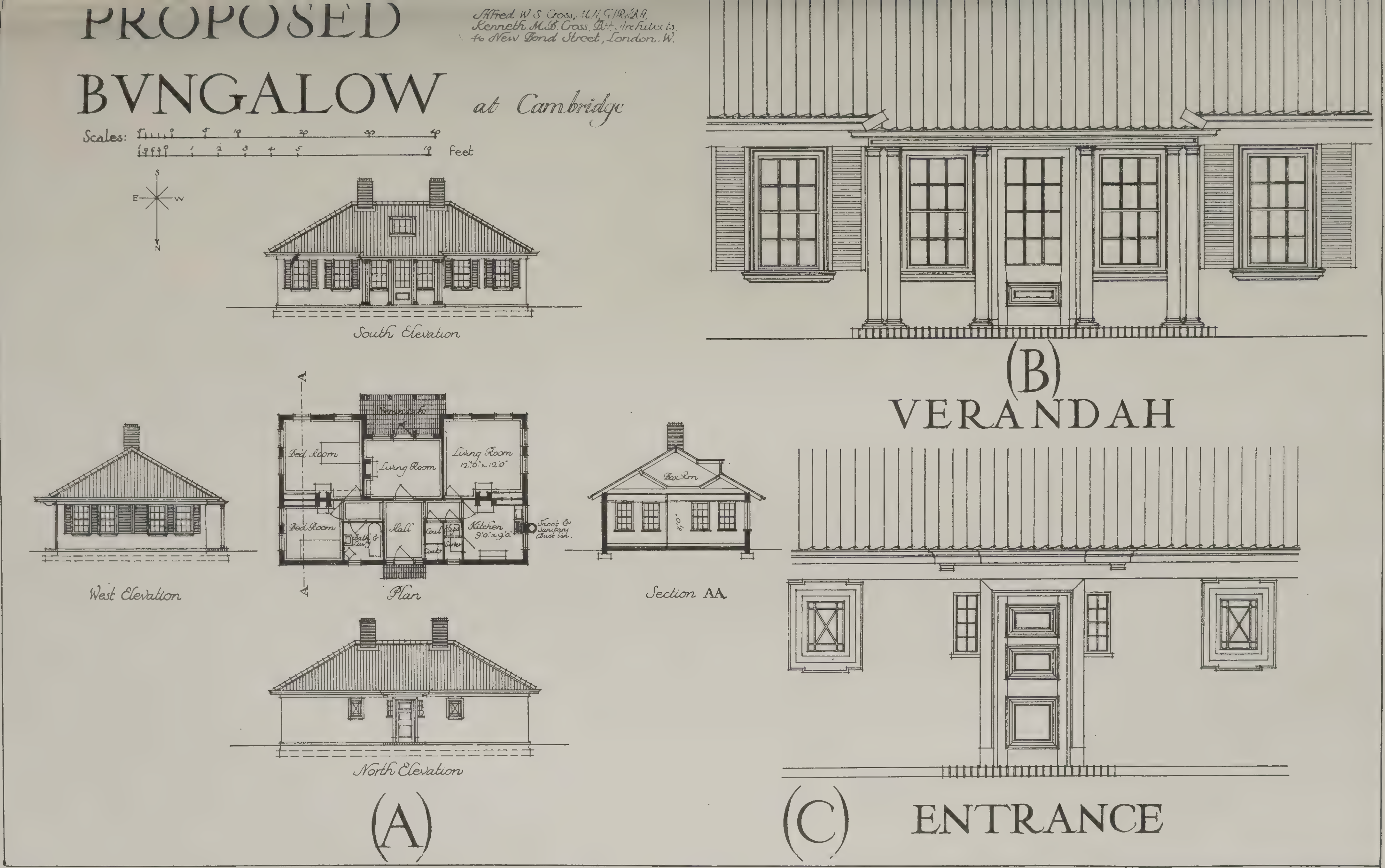

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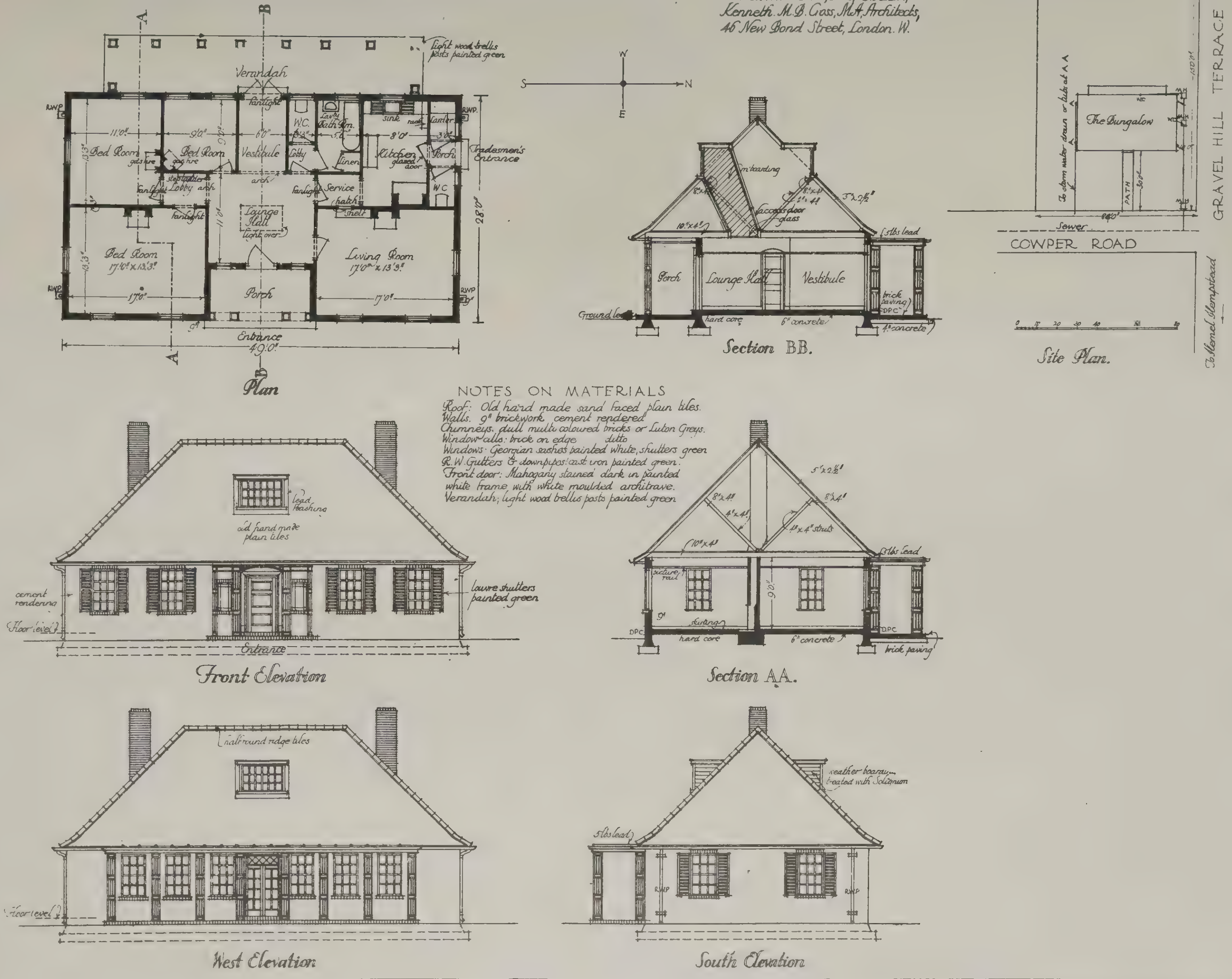
Scale of 0 5 10 15 20 30 40 50 55 feet.

Alfred. W. S Cross, M.A. F.R.I.B.A.;
Kenneth. M. B. Cross, M.A. Architects,
46 New Bond Street, London. W.



NOTES ON MATERIALS

Roof: Old hand made sand faced plain tiles.
Walls. 9" brickwork cement rendered
Chimneys. dull multi coloured bricks or Luton Greys.
Window sills: brick on edge ditto
Windows: Georgian sashes painted white, shutters green
R.W. Gutters & downpipes: cast iron painted green.
Front door: Mahogany stained dark in painted white frame with white moulded architrave.
Verandah; light wood trellis posts painted green

PHOTO-LITHO, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.

BUNGALOW AT BOXMOOR.

ALFRED W. S. AND KENNETH M. B. CROSS, ARCHITECTS.

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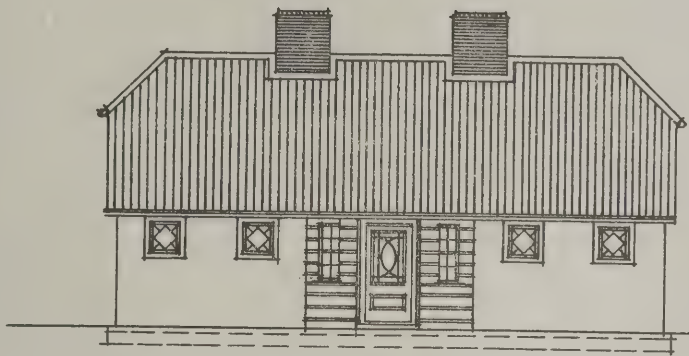
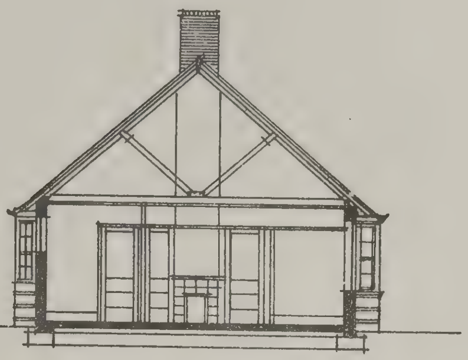
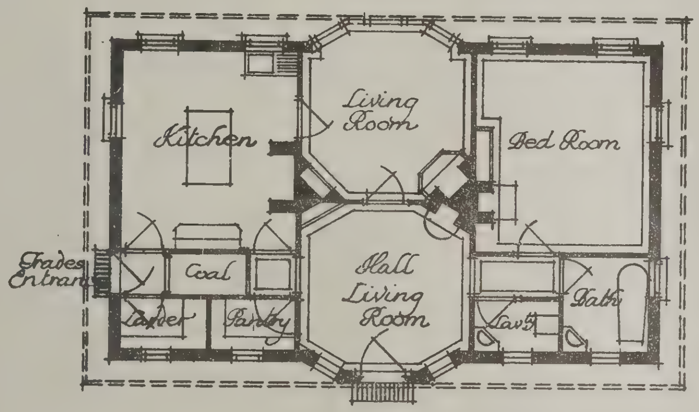


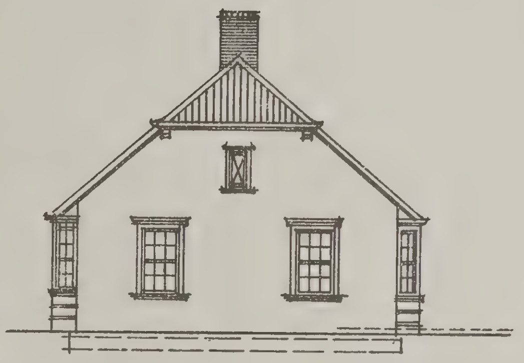
North Elevation



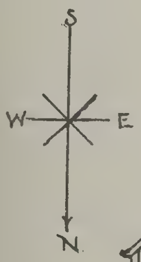
Section AA

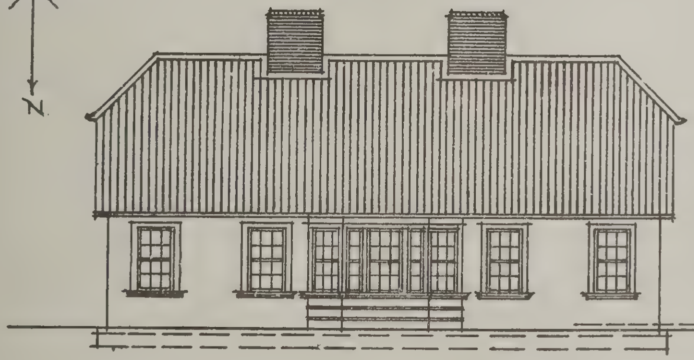


Plan

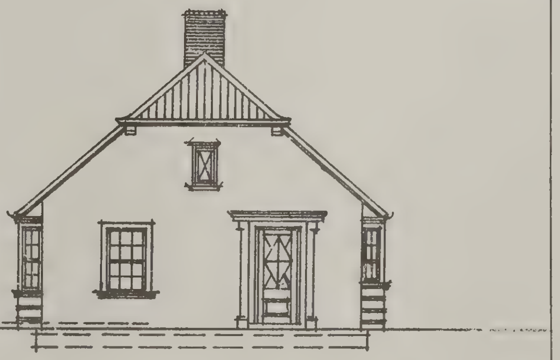


West Elevation





South Elevation



East Elevation

Scale of 5 0 5 10 20 30 40 50 feet

Alfred. W. S. Cross M.A, F.R.I.B.A,
Kenneth. M.B Cross B.A, Architects,
46 New Bond Street, London. W.

PHOTO-LITHO SPRAGUE-HAYCOCK (PRINTERS) LTD 69 & 70 DEAN STREET LONDON W 1

BUNGALOWS. ALFRED W. S. AND KENNETH M. B. CROSS, ARCHITECTS.

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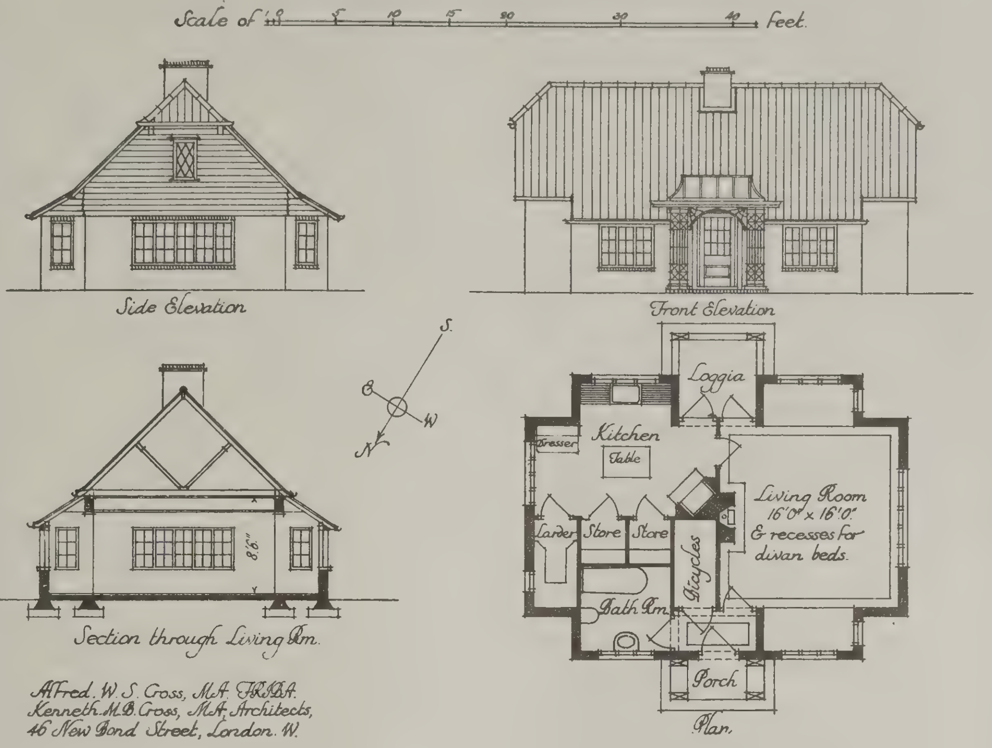
A WEEK-END BVNGALOW



Alfred. W. S. Cross, M.A. F.R.I.B.A.
Kenneth. M. B. Cross, M.A. Architects,
46 New Bond Street, London. W.

BVNGALOW AT TIPTREE, ESSEX.

For Rev. A. G. Braund M.A.

Kenneth. M. B. Cross M.A. Architect,
46 New Bond Street, London. W.

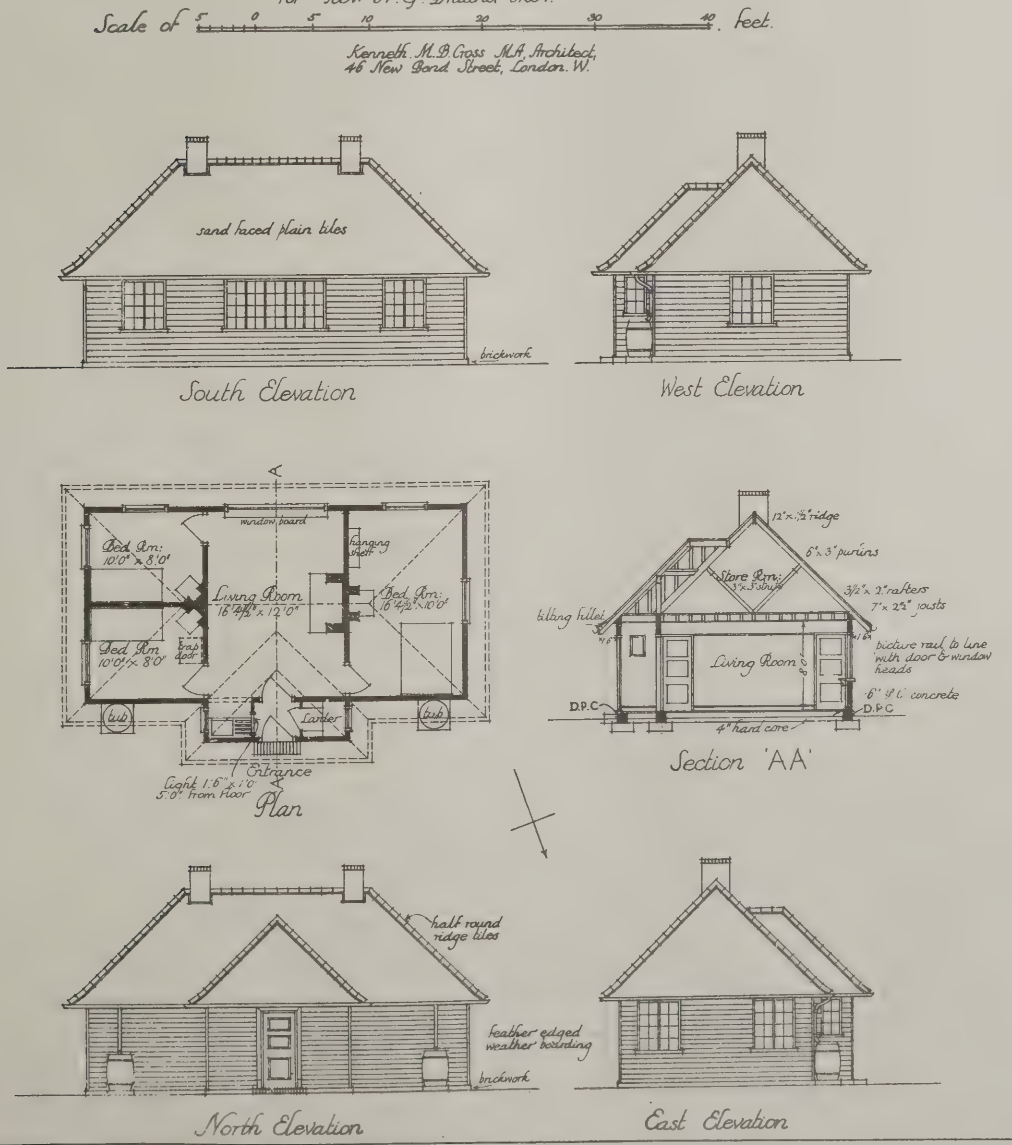


PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

BUNGALOWS. ALFRED W. S. AND KENNETH M. B. CROSS, Architects.

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Our Illustrations.

"PANTILES," BOYLE FARM, THAMES DITTON. G. ALAN FORTESCUE, Architect.

"DORMERS," THAMES DITTON. G. ALAN FORTESCUE, Architect.

RECTORY AT HASLEMERE AND COTTAGE FOR THE ASSISTANT CURATE.
ALLEN CHANDLER, of BAILLIE SCOTT & BERESFORD, Architect.

In planning both these houses economy both in cost and housework was the first consideration. All frills both inside and out were cut out. For easy housework a straightforward type of plan, with attention paid to small details such as cupboards, projections, etc., is better than many labour-saving devices. The interior plaster is finished a golden cream, left uncoloured in any way, and the whole of the interior woodwork stained with a home-made stain of light grey brown colour, which allows the different tones in the wood to show, harmonises well with the plaster, and is restful to the eye.

In elevation both houses follow the local country style; the upper part and roof tiled with local sandfaced tiles in good mixed colours of grey, brown and red, the lower part colour-washed cream, the window and door frames being painted the same colour so as to give the proper scale to the openings. The front to the rectory was treated more or less symmetrically to give a certain amount of simple dignity consistent with such a building.

The whole of the materials, bricks, tiles, oak, and labour, were local products; and much credit is due to the Guildford Branch of the National Building Guild for carrying on without any hitch through the financial trouble which has now ended the National Guilds' career.

FIVE BUNGALOWS. ALFRED W. S. CROSS, M.A., and KENNETH M. B. CROSS, Architects.

The accompanying plans illustrate some small bungalows, completed, in the course of erection or about to be erected, and they include:—

(*a*) A week-end bungalow, with a kitchen and a large living room, having recesses for beds, bathroom, a loggia for meals out of doors, bicycle store, etc.

(*b*) A four-roomed bungalow, comprising a hall-living room, a living room, a bedroom, kitchen and the usual offices and a bathroom.

(*c*) Another four-roomed bungalow, now being erected at Tiptree, Essex, consisting of a living room about 16 feet 5 inches by 12 feet and three bedrooms. This bungalow is constructed with walls of timber quartering covered with weather boarding; it is roofed with hand-made sand-faced tiles. The metal casement window-frames and sashes are painted white and the weather boarding is creosoted. Mr. T. J. Evers, of Tiptree, is the builder.

(*d*) A six-roomed bungalow built at Boxmoor for Mr. C. L. Gulliver. The accommodation provided includes a recessed porch, a lounge hall, a living room, kitchen, offices, bathroom, and a large projecting verandah.

(*e*) A proposed five-roomed bungalow at Cambridge, containing two living rooms, a kitchen, two bedrooms and a bathroom. A small verandah is approached directly from the central living room and there is a good entrance hall. The materials to be used are Luton grey bricks, pantiles, and wood shutters painted green will be fixed to the Georgian sash windows.

Notes and Comments.

The Leeds University War Memorial.

We are not surprised that the Leeds University War Memorial has aroused a storm of controversy. It appears to be an example of Mr. Eric Gill's most advanced method of combining realism and symbolism. The subject of the panel is Christ driving the money-changers out of the Temple. While the chief figure is in Eastern costume the money-changers are represented by modern types, including among them pawnbrokers. It is unquestionably, like all Mr. Gill's work, forceful and vivid, but it is not astonishing that the Leeds pawnbrokers have protested. Sir Michael Sadler, the Vice-Chancellor of the University, says the treatment adopted signifies the timelessness of the moral law, and is therefore fitting to commemorate the memory of those who fell in a great moral cause. At the same time we understand the indignation of the pawnbrokers, whose occupation, strictly regulated by law, is a great modern convenience for a large class who are intermittently in need of more or less temporary help. That the occupation itself is not a very tempting or savoury one is an accident of circumstance; but the men who carry it on, though they may not be distinguished for refinement or culture, are a useful and integral section of the community, and should not be condemned as a class.

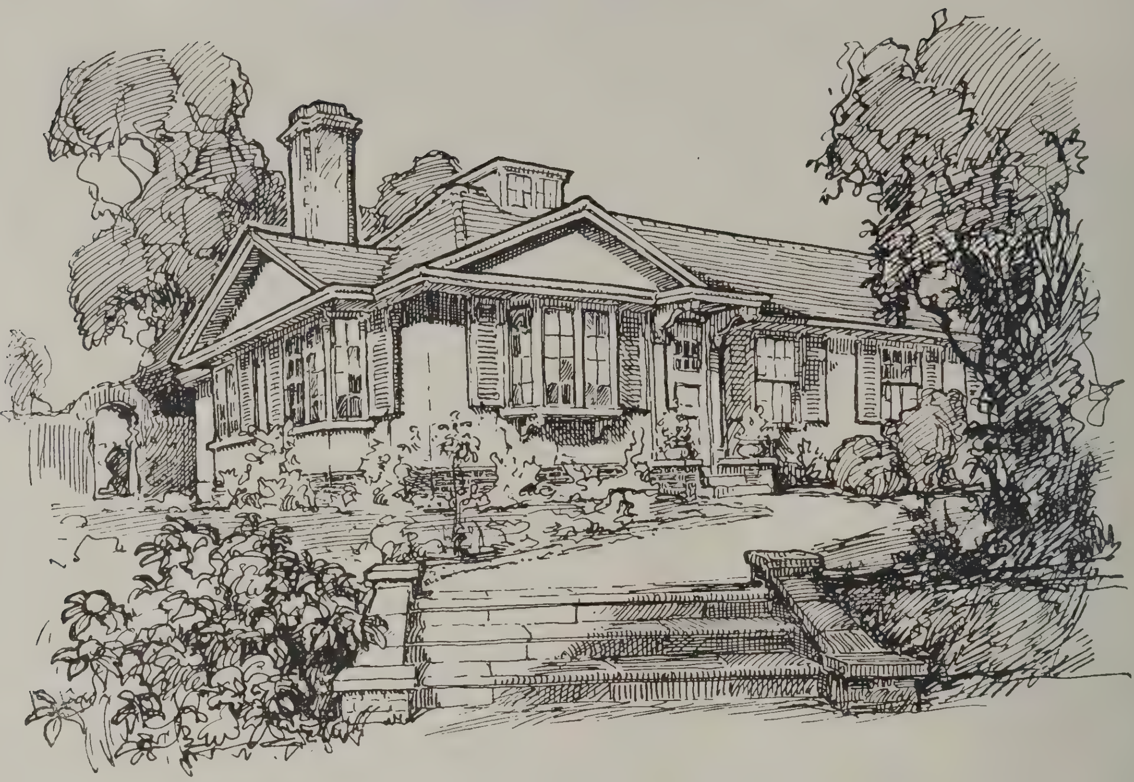
Bristol Housing Scheme.

The Bristol Housing Committee have issued a report containing criticisms of the new Housing Bill. They recommend that the number of houses to be put in hand should not be in excess of the number which can be rapidly provided by the available building labour of the district. The limitation of floor space for two-storied cottages will prevent the erection of the parlour type of house, and the Committee strenuously object to this limitation, as they consider the non-parlour type to be objectionable. As to the assistance to be given to private enterprise, the annual Exchequer contribution is equivalent to £65, and the Committee recommend that this amount should be supplemented by a Council grant of £120 in the case of plans submitted within the next three months. Subsequent to the Bill becoming law the Council will undertake to give a grant of £120 before 1925, and that subject to a fair percentage of profit for the builder the subsidy should be reflected in the purchase price of the house, that if desired by the builder a part of the subsidy should be given in the form of exemption from road-making charges. The Committee do not recommend the refunding of rates. The Corporation is also recommended to advance four-fifths of the value of houses to prospective purchasers at the rate of 3½ per cent., the Corporation to receive the Government subsidy to cover the difference between the rate of interest on borrowed capital and the rate of lending. The above, which are only a part of the recommendations made, indicate the complexity and difficulty which the present Government scheme brings in its train.

Mr. Hamp's Letter.

We may say without reservation that Mr. Stanley Hamp's letter is unfair and partisan in its character, and that many of the statements made in it are inaccurate. There is not the least evidence to show why or in what manner Unification is tied up with Registration, just as there was not the least evidence to show that the Registration Bill proposed by the present Council would be opposed by any other architectural body or any section of unrepresented architects. There is no justification for saying that "a few saw in this (the last election) the chance of promotion, and at the sacrifice of personal dignity took advantage of it." Such a statement is absolutely without excuse, and calculated, like all mud-throwing, to rouse feeling which is unnecessary. As we have said, we should like a little more argument and a little less unpleasant and ill-founded assertion on the part of some of the advocates of Unification.

Country Houses and Bungalows.

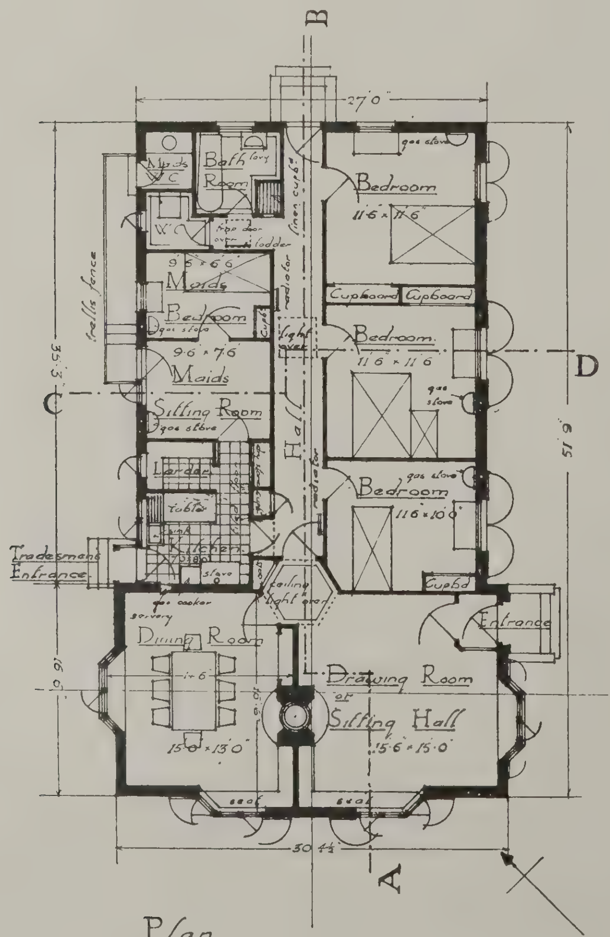


DESIGN FOR A BUNGALOW. Eugene C. Beaumont & Son, Architects.

In this design the servants' portion is entirely free from the residential portion; at the same time the kitchen stands in ready access with the dining room with serving hatch between.

As the plan provides a separate garden entrance and a tradesman's entrance the authors have deemed it unnecessary to provide a separate entrance hall or passage, but have thrown the floor space thus saved into the rooms.

It is proposed to build the walls in brickwork, the outside being finished with rough cast or smooth stucco, and a tarred plinth. All internal partition walls to be formed in concrete slabs. The roof to be covered with green Random rustic slating.



Plan.

The floors to be wooden joists and boarding, and to be 1 foot 6 inches above ground level to ensure a dry floor and good ventilation under. The kitchen and larder floors to be finished with red quarry tiles, and the bathroom and w.c.'s with jointless flooring. The inside joinery in most places to be stained in selected colours and varnished. The outside woodwork to be painted white with the exception of the venetian shutters, which would be in apple green.

In the roof it is proposed to floor over all available space as a box and sundries store, to be approached by step ladder fitted with slide hinges attached to the wall near the bathroom, and a large trap door in ceiling over, hung and fitted with balance weight.

Wardrobe cupboards are provided in every bedroom. Cloak cupboard is formed in the hall. Ample storage has been arranged in connection with the kitchen by the provision of large larder, dry store, together with other cupboards and shelves in all available places.

The sitting hall and dining room to be fitted with the new revolving grate, which can be turned at will so as to have the fire in either room as desired.

The kitchen to be fitted with a "Cookanheat" range with hotwater service to sink, bath, and lavatory, the pipes running through the linen cupboard for airing purposes.

At the side of the range a gas cooker to be fitted up for use in summer time, when it might be undesirable to have the range in use. For further convenience a "Victor" gas boiler to be fitted and connected to the hotwater service so as to give hotwater supply when the range is not in use.

A gas stove to be fitted in each of the bedrooms and the maids' sitting room; a flue being provided in each case by 4-inch stoneware pipes being built in the walls, and carried through roof to a vent and grating in small hoods in roof.

Two small radiators to be fitted in hall worked from the "Cookanheat" range.

To ensure adequate light and ventilation to the interior of the building two ventilating ceiling lights are provided in connection with the dormer and gable lights shown in roof.

The fund for the preservation of the Five Sisters Window in York Minster as a National Memorial to all women who laid down their lives in the Great War is now closed, the sum of £3,000 and also sufficient for the expenses and the Roll of Honour having been contributed. An audited balance-sheet will be published as soon as possible.

The Heating of Houses from an Architect's Standpoint.

We do not profess to believe in modern miracles, but are constantly reminded of the fact that man is as credulous as he ever was in the far-off past, and in nothing is this more clearly shown than in the extravagant belief of members of the public that, in spite of the high cost of fuel, means can be found to heat the average house successfully and to obtain hot water at any hour and in any quantity at an infinitesimal cost. Naturally the daily press have done their share in promoting this delusion, for we all like to read comforting news and are prone to believe it. If we find ourselves mistaken, it is easy to assume we have been misled and quite unnecessary to realise we have been searching for a modern alchemist's ideal.

All forms of heating involve the consumption of fuel by ourselves or others; and as all fuel is expensive, all efficient heating is expensive also, and those in search of great economy must put up with certain inconveniences.

The average man frequently goes to an architect and tells him he would like to have his house centrally heated—but—he would like fireplaces in the sitting-rooms and one or two of the bedrooms. Now a system of radiators for quite a small house may be put down in round figures as costing about £150, and unless there is a set-off against this sum in the shape of omitted flues, grates and chimney-pieces, which might be put at a round figure of from £10 to £15 each, the house must cost at least £150 more than it would otherwise have done, and in addition a heating chamber must be provided and the furnace will need attendance, stoking and occasional cleaning. Moreover, the radiators provided take up a certain amount of floor space and will require dusting even in a "labour-saving house." A disadvantage of hot-water heating is that in the spring and autumn we often have periods of very changeable temperature when an occasional fire is pleasant, but if we have to rely on hot-water heating a furnace must be kept going whether the heat is required for the whole or only part of the time. Still, with all these drawbacks it cannot be denied that hot-water heating is both comfortable and convenient apart from its incidental first cost.

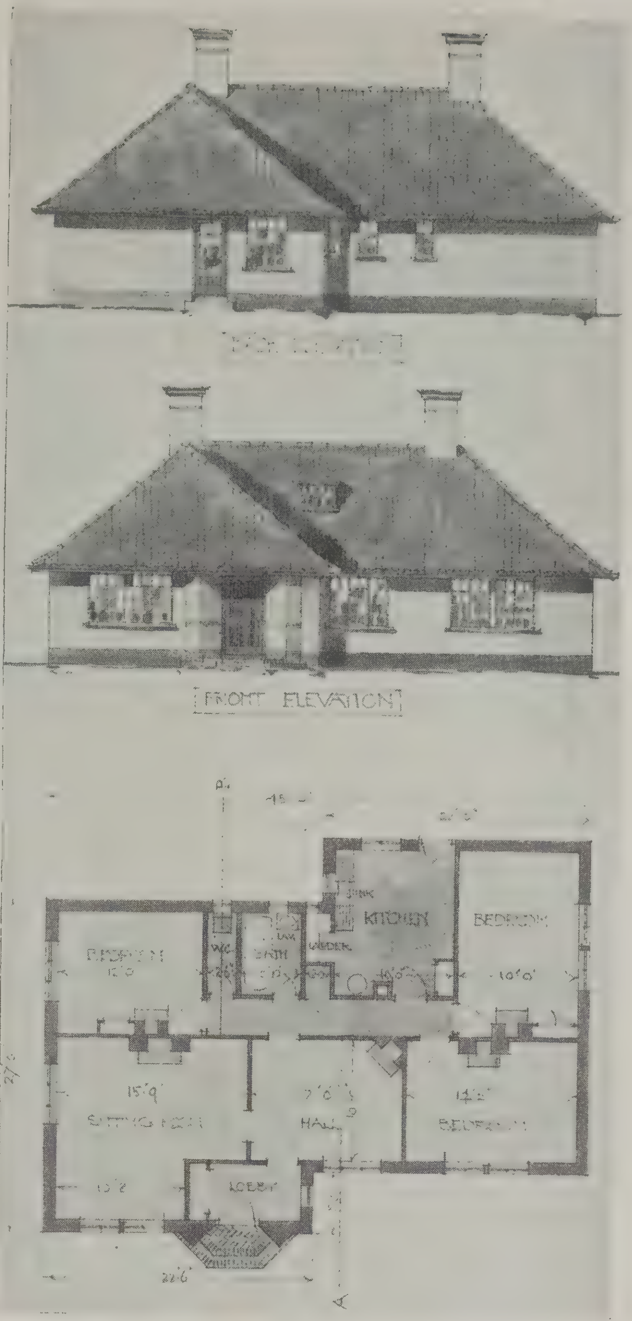
As to the vexed question of cooking appliances, opinions will always disagree. Much will necessarily depend on the individual inclination and aptitude of the servants employed, which will largely determine whether one of the many good ordinary ranges will best meet requirements or some of the newer appliances now on the market.

Any given range of good quality may be either praised to the skies or anathematised, and the architect should be wary about recommending any if his client has any strong predilection founded on experience. Anthracite stoves especially are either liked or disliked, and additional difficulties arise because anthracite supplied is often of an inferior quality while its price is extremely high.

The one fact which is generally admitted and may be considered as being proved is that, wherever a plentiful supply of constant hot water is desired, it is very advisable to employ one of the good water heaters now on the market, the cost of running which is usually put down at under a shilling a day, an expense largely counterbalanced by the saving effected when a stove is required for cooking purposes alone. The advantages or otherwise of running a few radiators off one of these heaters is a matter in which there is more difference of opinion.

Gas has certainly been proved during recent years to be one of the best and most economical means of supplying heat for cooking purposes, and possesses the enormous advantage of being readily manipulated. It may be, and often is, used wastefully by servants, but wherever ordinary care is used it proves the most economical means for cooking purposes. Probably for most people living in small houses a combination of gas cooker and water heater for hot water cannot be surpassed, while well-made gas stoves will meet the wants of the ordinary householder in all but a couple of sitting-rooms where the usual open coal or wood fire is preferred by the majority of people.

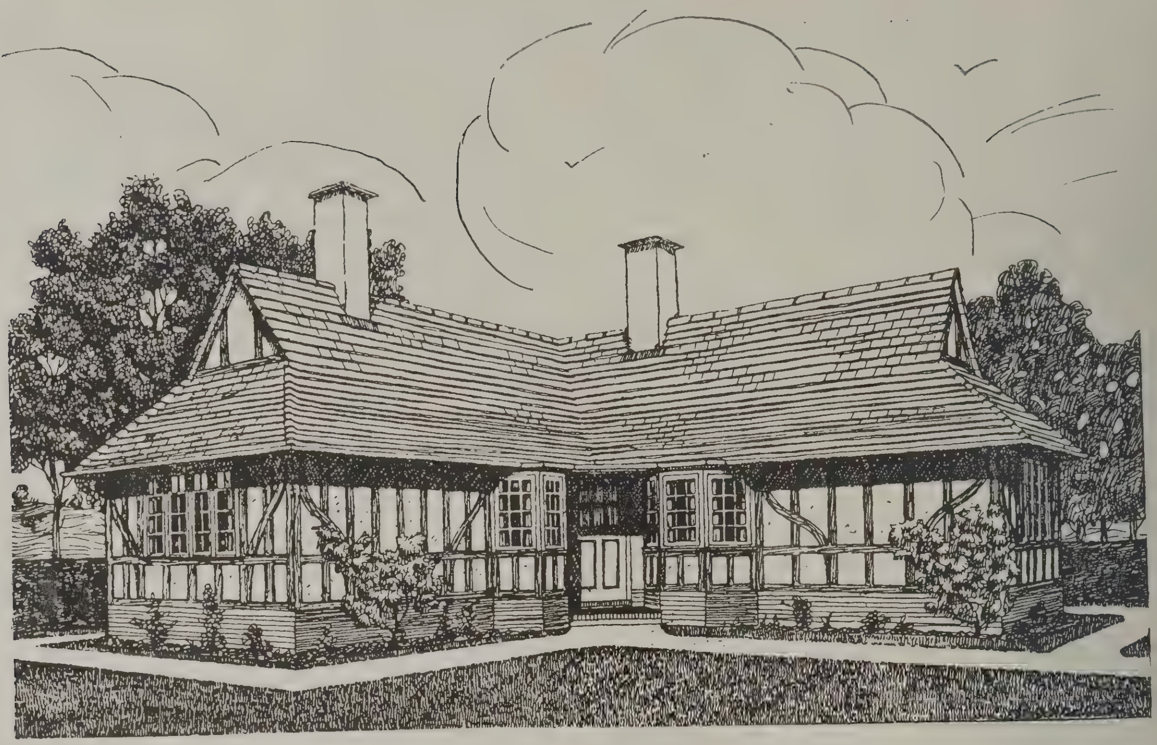
Most of the disadvantages attending the use of gas are due to the use of badly designed fittings; and though there is room for improvement, the more modern gas appliances do not leave much to be desired either in efficiency or economy.

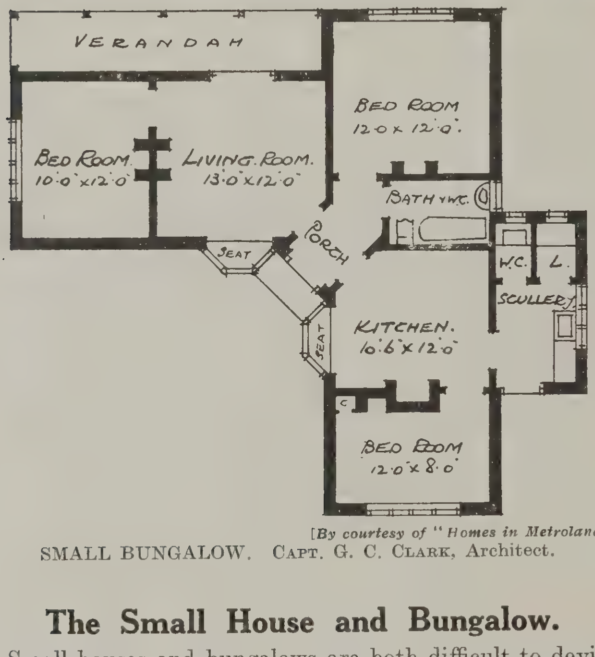


SMALL BUNGALOW. L. S. CROSBIE, Architect.

Undoubtedly, in heating as in other matters, those who are practical will readily realise that too much elaboration of an ingenious kind often defeats its object. It is better to have simple apparatus which can be easily run and understood by those who use them than an elaborate system which needs care and attention. We can probably have nothing which is entirely fool-proof, but we can reduce the number of the many turnings which a fool can take!

After all is said and done, the greatest of all economies is that which is the outcome of good planning and arrangement, rather than of the adoption of ingenious devices, and this has a direct bearing on the question of heating. The arrangement and disposition of rooms, the proper placing of doors, windows and chimney stacks, will make an enormous difference in the ease with which a building may be kept comfortably warm. An over-windowed house is hot in summer and cold in winter, awkward service arrangements may make it difficult to serve up meals hot, and those who are wise will recognise that they may save more money by employing a good architect than by adopting the most tempting of new methods recommended to them by our enterprising British press.





[By courtesy of "Homes in Metroland."

SMALL BUNGALOW. Capt. G. C. Clark, Architect.

The Small House and Bungalow.

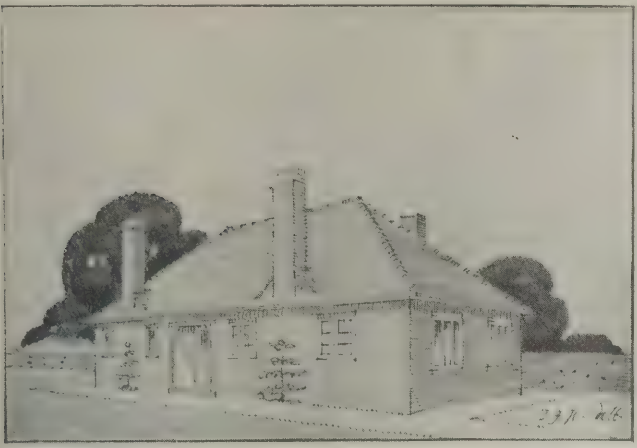
Small houses and bungalows are both difficult to devise satisfactorily, as they are usually the outcome of the necessity to force a quart measure into a pint pot. That is to say, that while the accommodation given in such buildings is usually limited to three or four bedrooms of small size and two sitting-rooms, the requirements of those who rent or build them would usually make it desirable to plan on a larger scale. But as we have to cut our coat according to our cloth, and money is the dominating factor, the result, however well an architect does his work, is often a certain amount of inconvenience for which the architect is unfairly blamed. The provision of kitchen accommodation and outbuildings in the small house is often inadequate for the same reason, while to provide accommodation for the numerous possessions of an ordinary small family in the shape of bicycles, boxes and other articles is all a matter of difficulty, usually resulting in the erection of temporary sheds of more or less unsightly appearance.

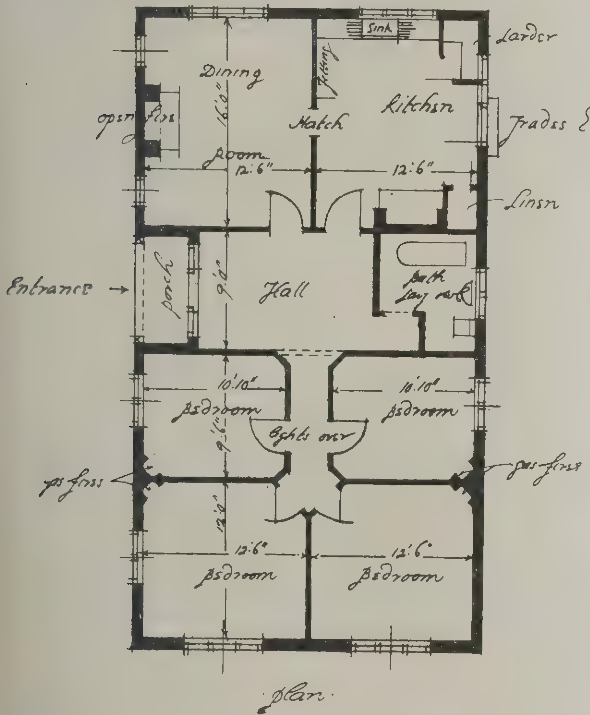
For all these reasons it is unpractical to cut down the size of a house more than is absolutely necessary, because a slightly larger house will possess conveniences and comforts which are very cheaply purchased for the extra cost entailed. In the size of rooms also a foot or two in extra length or breadth will often make the difference between comfort and discomfort, and is in most cases preferable to the addition of a bay window, which only increases the area at one point. When the vexed question of domestic work is considered, it should be remembered that it is easier to dust and clean a fair-sized room than one of smaller size which is filled too closely with furniture.

Important as good fittings are, they cannot render a badly planned house convenient, nor can they do away with the inconvenience of cramped space.

There are always a number of questions which can only be solved by a knowledge of the idiosyncracies and special wants of a client. For example, some people prefer one big sitting-room to two smaller ones, while others dislike the arrangements. Many people prefer to have a kitchen and scullery to a kitchen with a sink in it, and a small sitting-room for servants close by, while the size and number of bedrooms depends on the habits of the family, for in some cases a bedroom is partially used as a sitting-room, while in others it is altogether and exclusively used as a sleeping-place. The greatest economy in this latter case which can be effected in a house is to reduce bedrooms to convenient and properly ventilated compartments just sufficient to hold a bed, a chair, and a cupboard for clothes, and to omit fireplaces, only providing one or two for the principal bedrooms, to be used in case of illness. For the ordinary bedroom fireplace, which costs money and takes up room, is very rarely utilised, and one could go through many houses finding fireplaces which had never been christened by the flames.

The relative advantages of houses and bungalows also is a moot question, many people objecting to sleeping on a ground floor, while others prefer it. As to cost, the balance of advantage usually lies with the small house, because, design it as we will, we cannot use the whole of the roof space, and a smaller roof is sufficient to cover the accommodation given in a house as compared with the same accommodation spread over one floor. Then, too, we have extra foundations, enclosing some space between ground and floor-level which all adds to the cubic contents of a bungalow, and, therefore, to its cost, but which cannot be utilised for the provision of accommodation. Against this there is the comparatively small saving caused by the erection of the staircase and the fact that nothing but small floor joists are needed in a bungalow. In point of service the bungalow is probably a little easier to run than the house, but unless care be taken to get a bathroom near the hot-water cistern from the stove or heater, a greater run of horizontal pipes and, therefore, less efficient heating results. It may be said, however, that the relative





PROPOSED BUNGALOW, THAMES DITTON. T. FRANK HAWKES, Licentiate R.I.B.A., Architect.

advantages of house and bungalow, like the question of the priority of the owl or egg, is a vexed question depending on the individual equation.

Types of design are almost infinite in their variety, but fall for the most part under two heads—the formal and symmetrical design or the irregular and picturesque one. It is quite impossible to say which is best; both can be good or very bad according to the skill of the designer. Either is compatible with good and economical planning, and the adoption of either type must depend on individual preference, which should be largely governed by the nature of the site. An irregular picturesque site usually suggests more or less picturesque treatment of the building, while a flat site in near proximity to others may equally suggest a more formal and regular treatment.

There is much need on the ordinary building estate of far greater control of designs, for the only thing which can secure a satisfactory result is that houses in close proximity to one another should form part of a general co-ordinated scheme. Where this has been insisted on and carried out, as in the case of the Hampstead Garden Suburb, the result is wholly satisfactory. The appearance of a group of buildings may be absolutely satisfactory with the minimum amount of cost in elaboration or detail, while the units of which it is composed, considered individually, would fail to satisfy. There are sites which a client who has a particular type of house in mind should be advised to avoid, and equally others he should be urged to select.

It is advisable that those who build should have some plan or idea of the nature of the garden they want, and of the subdivision they prefer, for this, too, should very largely govern and determine the main lines of the plan of house or bungalow—a point too often overlooked till too late. Planning should not stop with the house, but should be continued in the garden, and this again should be considered in connection with the position and uses of adjoining sites and their possible development.

Excavation work has been commenced on the site of the new Ironmongers' Hall, Aldersgate Street, E.C. Mr. Sydney Tatchell, F.R.I.B.A., is the architect.

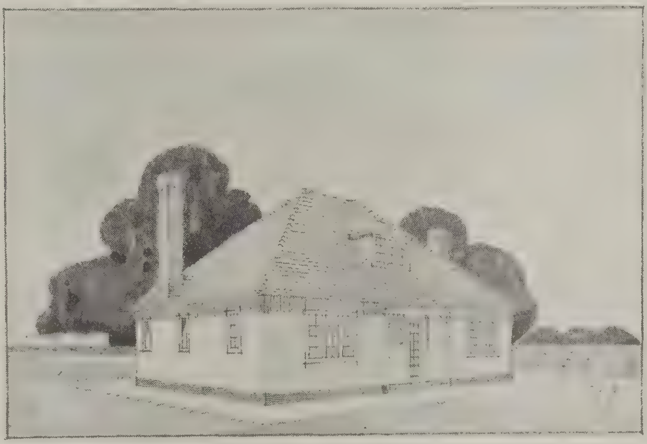
Owing to a sprained knee-joint, Sir Aston Webb, P.R.A., was unable to deliver his lecture on the " Development of London " at the Royal Institution on the 25th ult.

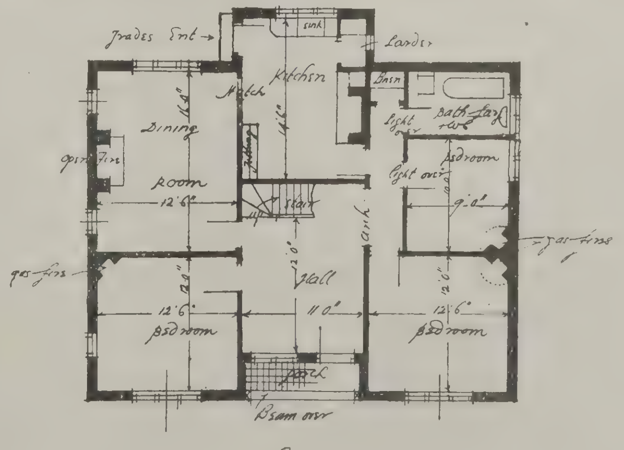
Mr. Hugh T. D. Hedley, F.R.I.B.A., a well-known Sunderland architect, was seriously injured by a fall at Bridge End House, Warkworth, last week while inspecting alterations to the house. Several ribs were fractured, and his head and collar bone were also injured.

Middlesbrough Corporation on the 25th ult. received sanction from the Ministry of Health to proceed with the erection of not less than 100 houses under the proposals of the new regulations. The Corporation is believed to be the first to obtain such facilities. The houses are to be built in blocks of four and six.

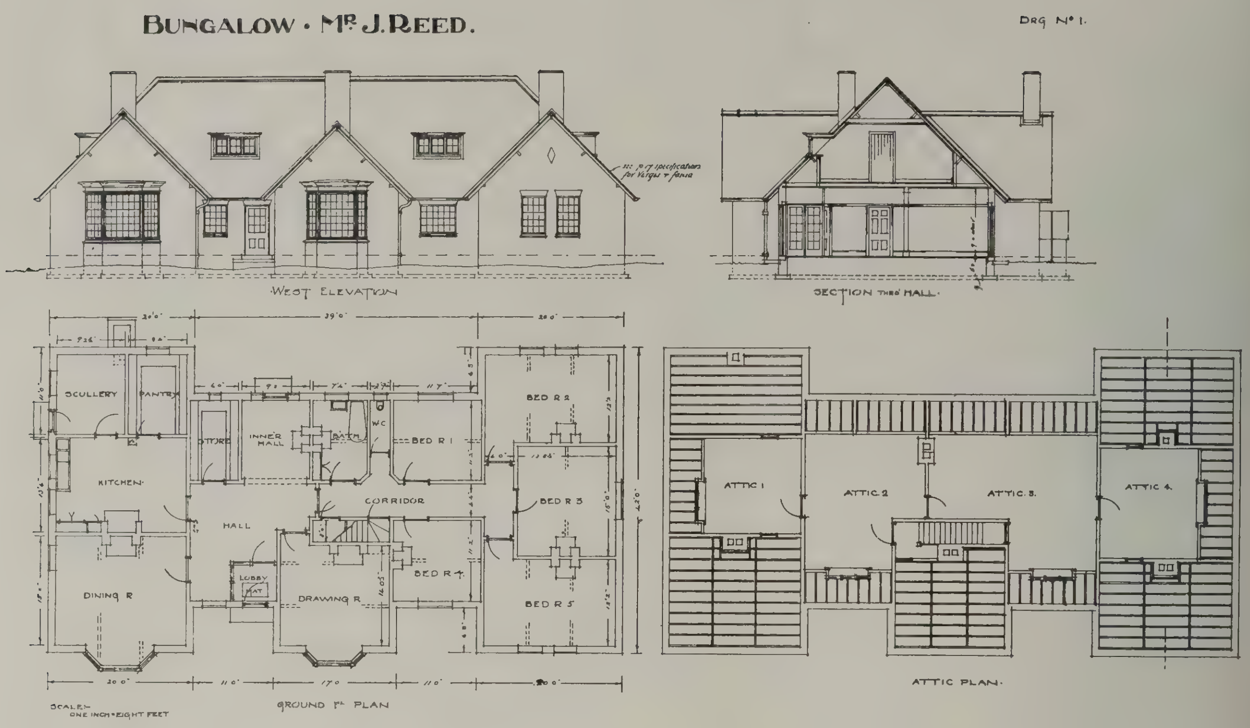
In Convocation a degree was passed authorising a grant from the Ireland Fund towards the purchase for the Ashmolean Museum of a Greek bronze head, which was described by Professor Stuart Jones as one of the most beautiful heads extant of the period of Phidias, and when restored would be one of the most valuable art treasures in Europe. The purchase will be completed through the generosity of an anonymous benefactor.

Barking District Council has decided that the old Elizabethan Court House must be demolished, and the work of demolition has actually begun. The timbers, however, will be preserved so that the Court House may be erected in its original form if so desired. The Elizabethan coat of arms which hung in the court-room and various old pictures have been removed to the offices of the surveyor, Mr. C. F. Dawson, F.R.I.B.A.





PROPOSED BUNGALOW, THAMES DITTON, FOR R. W. WILLAN, ESQ. T. FRANK HAWKES, Licentiate R.I.B.A., Architect.



BUNGALOW NEAR DRIFFIELD, YORKSHIRE. Capt. A. Atkinson, O.B.E., Architect.

This bungalow, which covers an area of 79 feet by 42 feet, was planned to meet conditions somewhat out of the ordinary, it being erected on a large farm in an exposed position on the Yorkshire Wolds, the very situation forbidding external treatment such as can safely be adopted further south.

The walls are in red brick with slate roof with large oversail at eaves and gables. Although red tiles might have been more artistic, it was deemed advisable to use slates in this particular instance. The windows are in all cases steel casements, the bays only being in wood frames.

The main entrance is through a lobby which is glazed the full height, and from the inner hall a door leads to the tennis lawn and back garden. The kitchen is placed to give easy access to the dining room, scullery, pantry, store, front door and farm buildings.

The whole of what would in a house be the " upstairs " is cut off by a glazed door and consists of 5 good bedrooms with bathroom and w.c., whilst the space in the deep roof is utilised to form 4 excellent attics, the larger being intended as a playroom.

The bedroom corridor is lighted by borrowed lights in the several doors.

The internal treatment is simple, the whole of the walls being treated in light colours of water paint with deep white friezes.

The bungalow has its own electric lighting plant—with various plugs for sweeper, etc.—water supply and drainage system.

The total cost amounts to approximately £2,000.

The Spanish Housing Law.

The chief features of the Spanish Housing Law, as set forth in " Garden Cities and Town Planning," are the following :

(i) Part I establishes which houses may be legally termed *cheap houses*, or houses for the working classes, putting some limitations on their total cost and the income of the tenant or owner, and setting hygienic and building standards to which they must submit. As long as they are part of a housing scheme, gardens, parks, gymnasia, baths, schools, co-operative stores, etc., will be legally assimilated to the houses.

Public bodies, corporations of every description, and individuals may build houses to be inhabited by their owners, or rented, or freely leased, or sold for cash or by instalments.

In the case of schemes comprising a large number of dwellings, builders must lay out and improve the site, if it is not included in an improvement plan duly adopted by the local authority.

All the houses built under this law must be inhabited by their owners, and so made an inalienable family estate.

(ii) Part II provides the following means for promoting the building of houses :

1. Exemption from all governmental, provincial and local taxes and assessments, during not more than thirty years.

2. Government loans, with thirty years' first mortgage security, and 2 to 3 per cent. interest, up to an aggregate of 100 million pesetas, for the building of working men's dwellings of which tenants shall become the owners within such a time, and for the housing of workers by their employers.

The loans shall not exceed 55 per cent. of the value of the estate, or 70 per cent. of the value of the finished buildings, and advances may be made as the building progresses.

Preference for these loans is given to the building co-operative societies.

3. Rent guarantee, that is, paying to landlords, by the Ministry of Labour, of a part, not exceeding one-half—and up to an aggregate of three million pesetas yearly—of the rents, in order to keep these as low as the tenants of the poorer classes can afford to pay.

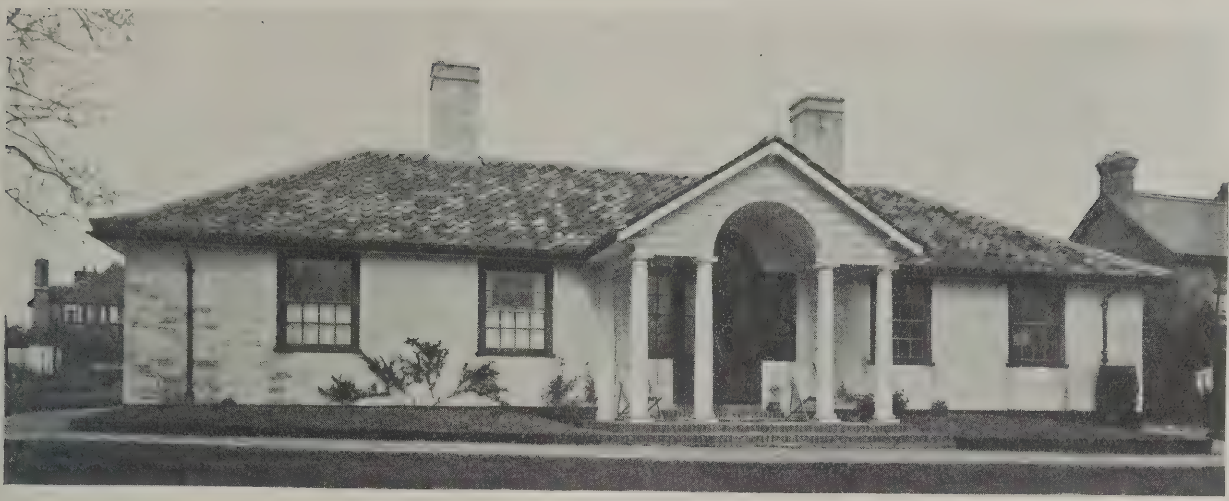
The rent guarantee is compulsory for the owner during ten years, and the Ministry may extend it by terms of five years. Every three years the rents the tenants must pay may be revised.

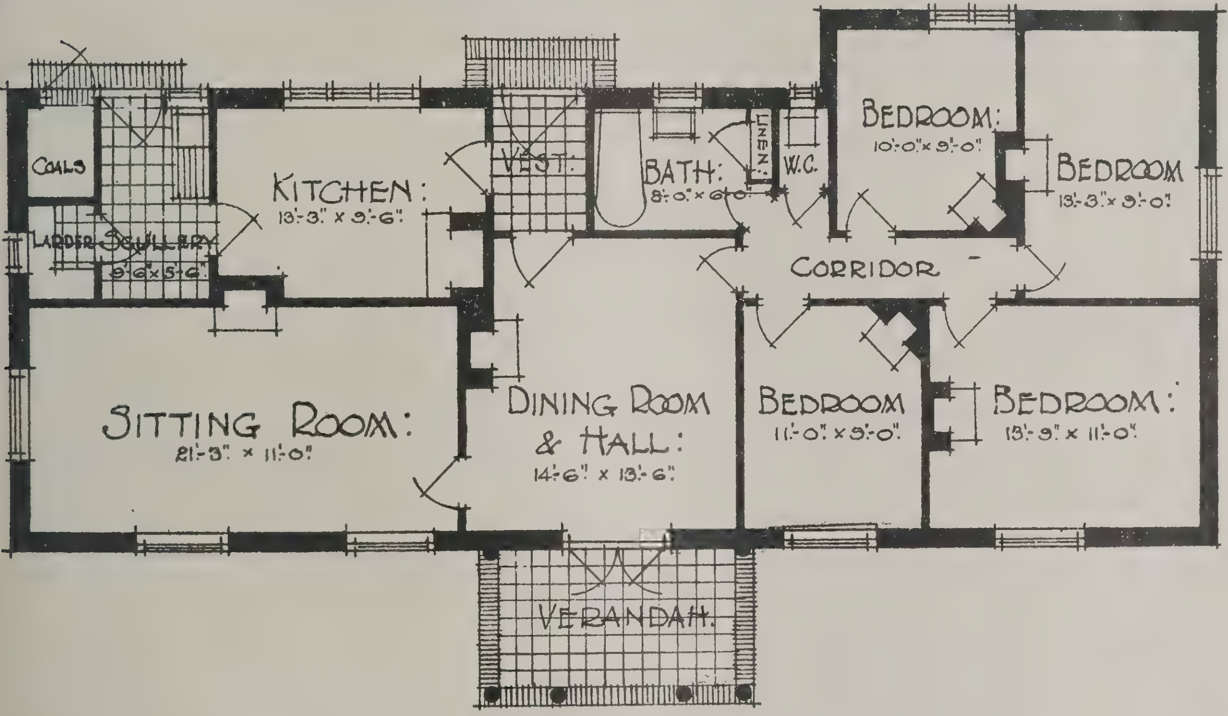
4. The paying by public moneys, up to a yearly aggregate of 500,000 pesetas, of 50 per cent. of the interest—which shall not exceed 6 per cent.—of the loans and bonds issued by builders, with preference for building co-operative societies.

5. Direct grants, not to exceed 25 per cent. of the amount invested in buildings and land. To these grants are ascribed yearly 500,000 pesetas, and eventually the remnant of the three million pesetas for rent guarantee.

(iii) The central, provincial and local authorities are empowered to lease, rent or sell land for the building of houses under this Act. Local authorities may also build houses and raise loans for this purpose, and apply to it the produce of betterment assessment and half the produce of sumptuary taxes.

The Act puts upon local authorities in whose territory housing shortage is felt the duty to submit within a year a scheme providing houses for the working classes. This scheme must be entirely carried out within twenty years. For raising funds for these schemes, local authorities may borrow and establish a tax on developed land.





GROUND FLOOR PLAN:

BUNGALOW, SCHOOL LANE, GERRARDS CROSS. WILLS & KAULA, Architects.

Berks, Bucks and Oxon Architectural Association.

By invitation of the Provost of Eton, the third annual meeting of the above association was held in the Election Hall at the Provost's Lodge, Eton College, on May 12. The report and balance sheet were adopted.

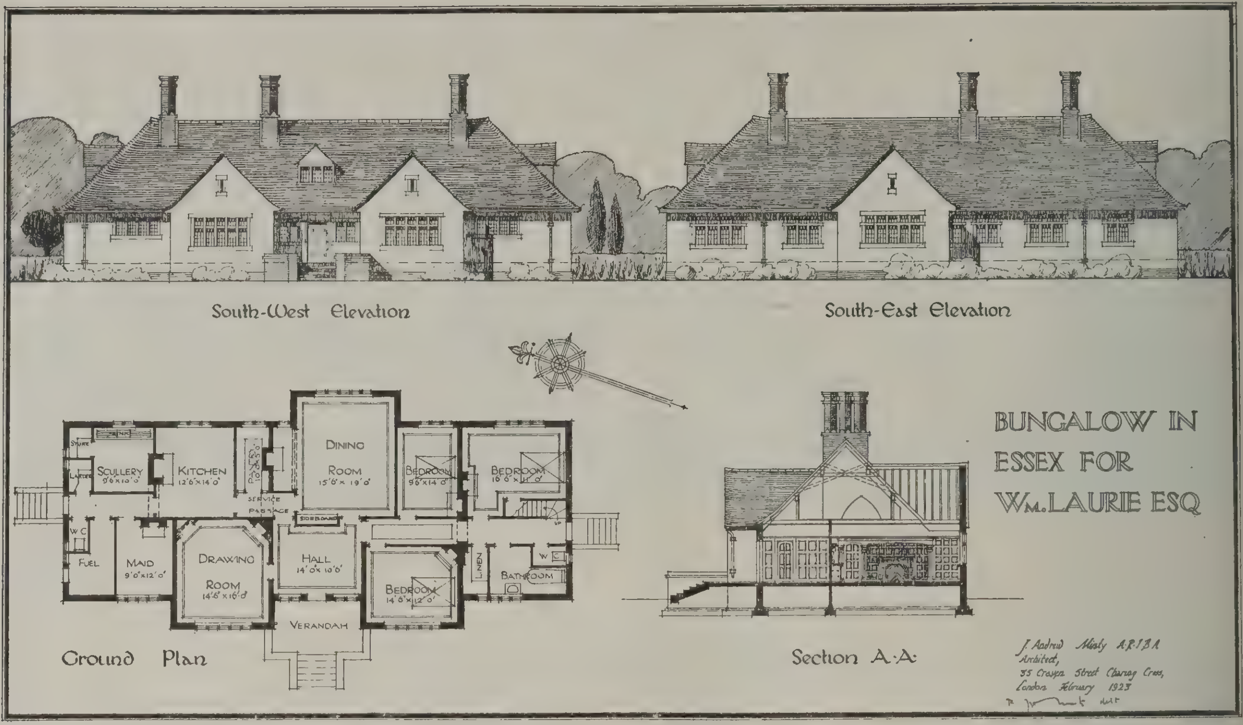
The following officers were elected :—President, E. P. Warren, F.S.A., F.R.I.B.A. ; vice-presidents, W. G. Millar, F.S.I. (Berks), G. H. Williams, A.R.I.B.A. (Bucks), H. S. Rogers, M.A., F.S.A. (Oxon) ; hon. vice-president, P. Waterhouse, M.A., F.S.A., P.R.I.B.A. ; hon. auditor, R. A. Rix, A.R.I.B.A. ; hon. treasurer, T. T. Cumming, A.R.I.B.A. ; hon. secretary, H. Hutt, A.R.I.B.A. Council.—Reading Society of Architects : C. S. Smith (F.), W. R. Howell (F.), F. H. Floyd (F.), H. W. Rising (F.), C. B. Willcocks (F.), F. A. Woods (A.), W. R. Morris (Lic.R.I.B.A.). Oxford Society of Architects : N. W. Harrison (F.), T. Rayson (A.), G. T. Gardiner (Lic.R.I.B.A.). Slough Society of Architects : G. H. Williams (A.), C. S. Kimpton (A.), A. Cooper (A.).

The President, in his presidential address, announced that the special appeal for funds to enable the association to carry on its education programme had been most generously responded to. The contributions received to date are : General purposes fund donations, £20 ; education fund donations, £90 ; education fund annual subscriptions, £4 4s. ; gifts of books were made to the association library.

Previous to the annual meeting, Canon Dalton conducted the association over St. George's Chapel, the Library, the Curfew Tower and other parts of Windsor Castle.

After the meeting, the Provost of Eton conducted the party through the Provost's Lodge, the Library, the College and the Chapel. The President voiced the thanks of the association to the Provost. The party also visited the Town Hall, Windsor. The members of the Slough Society of Architects entertained the company at tea.

Messrs. James Carmichael, Ltd., 331 Trinity Road, S.W.16, have received the contract for the erection of new nurses' dining rooms, etc., at St. Thomas's Hospital. The undertaking has been possible by the liberality of the Trustees of the late William Shepperd, the builder and contractor. The invitations to tender were limited. Quantities were prepared by Mr. Sydney Gordon of Finsbury House, Blomfield Street, E.C. The architect is Mr. Harold W. Currey, Licentiate R.I.B.A., 37 Norfolk Street, Strand, W.C., in consultation with Mr. W. Campbell Jones, F.R.I.B.A., F.S.I. The following is the complete list of tenders :—James Carmichael, Ltd., 331 Trinity Road, S.W.16, £27,750 ; Sabey & Son, £28,791 ; Holloway Bros., Ltd., £30,152 ; F. G. Minter, £30,349 ; Holland Hannen & Cubitts, Ltd., £30,649 ; Higgs & Hill, Ltd., £31,313 ; Perry & Co., Ltd., £32,100.



BUNGALOW IN ESSEX FOR WM. LAURIE ESQ

Correspondence

Brighter Hospital Buildings.

To the Editor of THE ARCHITECT.

SIR,—Medical men and industrial psychologists are laying increasing stress on the value of light and colour as aids to health and happiness. At a time when so many new buildings are being planned or proceeded with, may I emphasise the importance of this subject in regard to public structures where people congregate, and particularly where the young, the infirm, and the wounded on life's battlefield are cared for and nursed back to health.

Too many of our infirmaries and hospitals have the exterior air of gaols, while their interiors are also capable of immense improvement. No one is more sensitive to depressing surroundings than the classes I have described. No observer will ever forget the magnetic effect of light and cheery wards upon the poor wounded soldiers when first brought in from the advanced dressing stations during the war.

True, our modern hospitals show a great advance, but the therapeutic value of brightness and sunshine is still not fully appreciated. In nursing homes also, in creches, schools, public baths, railway stations, and the like, a greater use might well be made of brightly coloured materials such as certain terra cottas, sanitary painted surfaces, and glazed bricks, all of which, while conserving and refracting our all-too-meagre sunlight, are at the same time in themselves sanitary, and easily cleansed of atmospheric and other pollutions.

Our grey skies, grey smoke-stained lungs, and grey buildings are reflected in our grey lives and stupid ways of trying to brighten them. Let us make a fresh start with colour and cleanliness, and see what they make of us.—Yours, etc.,

C. W. SALEEBY.

13 Greville Place, N.W.6.
May 24.

"Music in Stone."

To the Editor of THE ARCHITECT.

DEAR SIR,—The sentiments "Eugenie" expressed in that millionaire's mansion, full of stuffy upholstery and florid draperies, with walls decorated with sham perspectives, are often voiced by architects; but I did not know any sham perspectives existed outside an architect's office.

I have often heard architects claim to be the master hands. My own parent did so, though his actual knowledge of painting and sculpture was limited to the appreciative side.

He used to hold forth that all other arts were subjective to architecture, and existed only to adorn and enrich the architect's conceptions.

In addition to listening to my parent I have had a long personal connection with architects, and I have never yet been able to discover the line where building becomes architecture, and vice versa.

I have on many occasions discussed with members of the profession the work of others, and I have usually found that if an architect does not approve of the structure under discussion he dismisses the same by the comment that, after all, it is only building and can have no pretensions to architecture.

To me architecture has always appeared to be expressed (apart from good sound planning) by a fine appreciation of proportion, and a refined taste in detail decoration, in the selection of style, and the use of ornamental forms in keeping or harmony with that style. I will never admit that the architect is the master hand. It is no special credit to the architect that his creations possess floors, walls, and windows. His gifts are recognised by the well arranged and proportioned use of these essential features.

If three young men were to elect to study respectively architecture, sculpture, and painting, it would be simply unvarnished conceit for the architect to claim to be the master hand. I have a very dear friend who studied architecture at the same time as I was devoting myself to decorative art and design. I will never admit him to possessing the master hand. He could design a hole in a wall and name it a window, but he is incapable of designing a pair of curtains of any ornamental pretensions, neither could he extend his power of planning to designing carpets. To claim the master hand because he designs wall spaces and divides the same into well-proportioned panels suitable for decoration by either frescoes or tapestry hangings is entirely unjustifiable.

The only real justification for such a claim lies in the fact that as the architect he acts as agent for his client in matters of decoration, which is not a justification based on merit.

Eugenie claims with unblushing impudence to be the master hand, and yet admits that he cannot make John play his music.

Nowhere in the story is it stated that John is in any way a poor sort of sculptor. And we must conclude therefore that the fault lies with Eugenie, who is unable, like many architects, to explain exactly what he wants. He therefore conveniently passes the blame on to others by stating that they are not tuned to the right pitch. A sculptor worthy of the name is not a limited craftsman. He can create at will what his clients wish—to-day a Gothic figure; to-morrow, if needs be, a Classic group; and if the architect can express what he needs, any first-class sculptor would be able to produce what is required.

I quite agree with Eugenie when he says: "But I want to show you that if an architect is any good at all, he must know all about the creation of the smallest details on his building, and that these cannot be grafted on from a foreign source. I want you to understand the intimate connection there is between carver and architect."

Why Eugenie should have here introduced the carver instead of the sculptor I cannot understand. For a carver is not necessarily a creative personality at all, whereas a sculptor most assuredly is. Because Eugenie knew one person who took a plaster cast from a human figure and carved it in stone, it does not say all sculptors do the same, or even if they did that they were any less sculptors. I know many architects that have copied details from existing buildings and are none the less architects. In fact, many architects, instead of designing ornamental decorations, walk round the collections of some of our decorative plaster firms and select from old specimens the mouldings to be used. Casts are taken from these originals until sufficient lengths of material are created for the architect's use.

The arguments and comparisons used by Eugenie are in very truth just conceited claptrap, the vapourings of a man with little knowledge and no experience.

There is absolutely no comparison between the taking of a plaster cast of a human figure and carving it in stone, and taking the cap off a camera.

To take a plaster cast of a human figure is a very complicated business, requiring considerable skill and practice. The mould will be in a great many pieces, which have all to fit. To carve the result in stone is in no sense a purely mechanical operation. It is possible to point a piece of marble up to a very advanced stage, but a very finely trained touch is needed.

On the other hand, it is quite possible to-day to take a photograph and produce an artistic picture. It all depends who handles the camera and who is responsible for the subsequent operations.

All that Eugenie really wants is for the client to say: "Here you are, my dear sir. Here is £500,000. I like your plans; get on with them."

If Eugenie has a client of this kind, and has designed a scheme and knows exactly what he wants right down to the smallest detail, he naturally is justified in employing whom he pleases. No sculptor, if he has any sense, indeed no craftsman or contractor of any part of the scheme, if he values his own peace of mind, will accept work if he knows he lacks the support of the architect.

To expect if a client goes to a sculptor and says, "I want you to put up a memorial for me," that he, the sculptor, should turn round and say, "I only accept architectural work through an architect," is asking too much.

If I were placed in such a position, I should inform the client that the services of an architect would be necessary for certain work, and that I could secure such services. I most certainly never would tell my client to go to an architect and insist on my being retained for the sculpture. If I did, I should be running a first-class chance of losing a commission.—Yours, etc.,

A Craftsman.

The R.I.B.A.—Where is it Drifting to?

To the Editor of The Architect.

Sir,—The correspondence which has appeared during the recent elections makes one seriously ask the question, "*Where is our Institute drifting to?*" For it is certain that unless this question is considered carefully by all those who have the interest of the R.I.B.A. at heart disaster will overtake it, and the position of the leading architectural society will be undermined by those whose one object seems to be not the interests of architecture, but mainly the benefit of a small section of architects.

It is necessary to go back a little to fully realise the cause of the present state of affairs, and it will then be apparent that the vexed question of Registration is really the primary cause. A domestic question which has no relation to the production of good architecture.

It was felt mainly by the younger members that the previous councils did not advance this cause fast enough—in fact it was often said that the old Institute was lifeless, and honestly said, without knowing what was quietly taking place towards this end. I must admit that such a criticism was excusable except by those members who were in a position to know better; unfortunately a few saw in this feeling the chance of promotion, and at the sacrifice of personal dignity took full advantage of it.

When most of those inside and outside the Institute realised that a real step was being taken by the Council in trying to advance a scheme for unification, these individuals saw their opportunity, and created what they were pleased to call "*The Defence League.*" By persuasive and carefully worded letters in the Press, they very soon obtained members, for it was only necessary to write or say you were a sympathiser and you were enrolled—delightfully easy, and so inexpensive! But there was much more in it than was at first apparent.

This self-constituted League became a political organisation making capital of those who were and also those who were not in favour of Registration—in other words, those who thought unification went too far and those who thought it did not go far enough.

The result is known to all, that at the last year's elections this League, or rather the few who constitute it, carried the poll, and we were given a Council which the best that can be said of it is that it represented a minority who were apparently sufficiently interested in the one issue to vote *en bloc* for its representatives. Now the question which must be faced is, are we to allow the R.I.B.A. to be run by such methods? You will be told that this particular Council really represented the feelings of the majority. The present elections should surely demonstrate it. Should this really be the case it will be quite apparent that our Institute has indeed changed, and that it has no longer the interests of architecture as its chief function, but has become a form of trade union, and will in time suffer the meritable consequences.

It is astonishing to me that there should be so much confused thinking over the question of Registration, for has it not been so long a matter of conflict in the profession? One would have thought that those who were so keen upon getting an Act of Parliament would have seen in the unification scheme the first sound step towards that end, but alas! those who do know better have killed that for the time being, and in doing so put back the chances of a Registration Act for many years. They will tell you to look at what the dentists, the nurses, have done by taking the course they suggest, but they do not purposely tell you to carefully consider the essential difference between those professions and that of architecture. To do so would at once destroy their arguments.

These men know it, but at present it does not answer their purpose to tell you so. So much can happen between now and when they will be forced to admit they were wrong that they will then, no doubt, say that "although we have failed nobody else could have done better."

Now let us for a moment consider that position, for certainly if they are allowed to steer the ship it will find the rocks at an early stage of its voyage, as has already been instanced in the Registration Act they have recently prepared, which neither they nor any one else thought would get very far. Their excuse, of course, will be now and every time they fail that they were not given a fair trial. The pity of it is that our Institute is to be made the battlefield for this useless warfare, with the result that the things that really matter can have no adequate attention.

If we could only hand the Institute over to the so-called advocates for Registration for several years to satisfy them and prove that it will need more than the Institute's power alone to secure what they want, it would be a useful lesson, but the price would be too great. They would assuredly find that any scheme for Registration is doomed to failure, unless it has the unqualified support, not only of all existing architectural societies but also that public opinion believes there is a necessity for it.

I ask those who think otherwise to consider and make out a case which is not purely one for the so-called qualified architects, and to carefully weigh up its chances without such co-operation.

Now let us consider for a moment what all this discord is meaning to the prestige of our Institute. For the past twelve months we have had a Council mainly composed of men selected by the Defence League, men who have brought into the Council Chamber for the first time the political atmosphere which will destroy freedom of thought, and which means that any measure introduced by a few leaders must be accepted without question.

Even with such power, what has the present Council accomplished? It can be broadly stated as follows:—

1. Abolished unification committee.
2. Prepared an abortive Registration Bill.
3. Repealed the former Council's proposals to give all Associates equal voting powers with Fellows.
4. Produced an academic dress for members.
5. To nominate one of themselves as candidate for the presidential chair.

This may or may not seem to be a sufficient reward for the support given to them, but it does mean this, in my humble opinion:—

By act No. 1 they have destroyed the chances of ever getting a Registration Act until by other means the same result will be obtainable.

By act No. 2 they have wasted valuable time and money by not realising the result of their first act.

By act No. 3 they are appealing to the Associates as a body for their support by being able to state that this measure was one for which they were primarily responsible.

By act No. 4 they have tried to enhance the importance of Institute qualifications, not realising that it is what one does, not what one wears, is the thing that matters, with the result that the suggestion of academic dress has been received with ridicule.

By act No. 5 they have proved the justification for the beforementioned criticism.

One almost looks in vain for any sign that our Institute in the immediate future will be engaged upon those matters for which a learned society should exist.

Unless it be that the necessity felt for the New Emergency Committee shows that at last our members are realising the need for some united effort to prevent the continuance of the present regime, and if what has taken place is the means of stimulating into action those members who, unfortunately, are so apathetic as not to record their vote at elections, a useful purpose will have been served.

It is of the utmost importance that these contentious matters are quickly solved, or at least kept within reasonable dimensions. Unless they are there will be little or no time to attend to the matters of real public interest and professional importance for which our Institute primarily exists.

If an apology is needed for taking up so much valuable space in your paper, it is that I feel the time has arrived when each and all should consider to where we are drifting, and the full consequence of such a change of policy. I feel we should all take whatever step seems most necessary to safeguard the prestige of the Society in which we are all sincerely interested.—Yours faithfully,

Stanley Hamp.

The Economic House.

By P. W. Hubbard, M.A., A.R.I.B.A.

Owing to the present activity by the Ministry of Health in regard to Housing, there is a consequent stimulation of public interest in building. Many people up to now have considered the question of buying a house, at present prices, beyond the dreams of a profiteer. Therefore the question arises: What is the most economically planned and constructed house that one can get for the money?

Let us take the case of the vast number of people who do not want to employ more than one servant, but yet require a brick house comprising two sitting and four bed rooms, with the possible addition of a small boxroom, which can also be used as a store.

The plan illustrated shows such a house, which was designed in conformity with the following principles :—

1. It was necessary on account of cost to keep within a certain cubic area, so that the available space had to be utilised for some definite purpose, which forbade the employment of lobbies, spacious halls, landings, wide passages, etc. The bathroom, w.c., and kitchen offices have been reduced to the minimum that is compatible with the requirements of use and comfort.

It will readily be seen that areas which could be devoted to the above in pre-war days must now be regarded as expensive luxuries, and it should be remembered that space in the house that is not in constant and general occupation all needs foundations and roofing, and hence becomes uneconomical.

The space thus saved may much more profitably be given to the rooms.

2. Chimneys should not be placed on outside walls, on account of the loss of heat which is entailed by such a position.

It is estimated that no less than 40 per cent. of the heat generated by a coal fire is lost by contact with the outside air through exterior walls.

We do not advocate the abolition of coal fires, though the labour saved by using gas and central heating is well known. The cost of chimneys is not enough to preclude their use entirely; so one stack, which does service to the two living rooms and two best bedrooms, is indicated on the plans.

For the small room on the east side a gas fire (with a flue pipe, which exudes the waste products of combustion under the tiles) has been provided.

3. Bedrooms should be so arranged that they do not have more than two outside walls. Even though a room is situated in the south-west corner and surrounded by cavity walls, it will still have a chilly feeling in winter, which often necessitates constant fires.

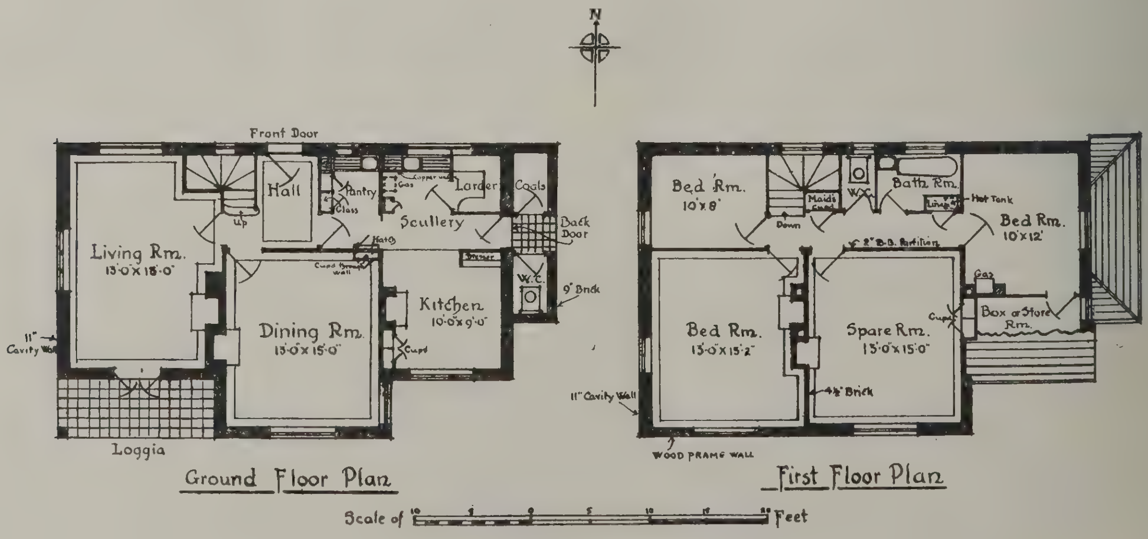
4. If possible, the drains, bath waste, etc., should all be arranged so that they leave the house from one side only or from one corner. The bathroom and linen cupboard, containing the hot tank, should be within easy distance from the kitchen boiler.

It will be seen from the plan that the house is so arranged that the hall, staircase, passages, scullery, larder, bathroom, w.c., and the least important bedrooms are placed on the north side, thus giving the south aspect to the living and largest bed rooms. The bathroom is over the scullery, and the greatest economy has been effected in the drainage system.

With regard to labour-saving devices and general upkeep, it may be noted that doors and interior woodwork should be stained or polished a lightish colour, so that the interior and exterior painting will not fall heavily on owner or tenant.

The window sills and window boards are formed of tiles, which can easily be kept clean with the minimum of labour.

There are no flights of outside steps to be cleaned, and from the cook's point of view the conditions are ideal, since the scullery is to all intents a working kitchen. On one side is the gas cooker, with convenient cupboard. Under the window is the sink, with draining boards on either side; the left-hand one, which folds back, covers a portable copper, and on the opposite side of the scullery is the larder, with a north window. A pantry adjoining is also provided with glass cupboards and small sink.



The kitchen proper, though of small dimensions, thus becomes almost a sitting room for the cook. A service hatch to the dining room, with a cupboard beneath, which is opened on both sides of the wall, is a device which can readily be appreciated.

If the soil be suitable, the ground may be covered with concrete and overlaid with some form of jointless flooring, while the scullery, larder, etc., can be simply floated in cement. This method does away with the necessity of extra brickwork in the foundations, wall plates, joists and site concrete.

Further economies may be effected in the flooring of the bedrooms by allowing beams to appear in the ceiling below, and using short joists of small scantling for bridging purposes. The usual system of wasting some nine inches of dust-harbouring space between floor and ceiling is thus reduced.

Though each case is altered by circumstances, the cheapest form of roof is one whose eaves are on the same level all round, and which requires as little cutting about for dormers, etc., as possible. Thus it is questionable whether a mansard type, though of great service in reducing brickwork, really affords much saving on account of the extra labour required on it.

Much has already been said on the subject of such labour-saving devices as basins and hot water in each bedroom. As against the saving in domestic work and general convenience must be placed the initial outlay on plumbing and fittings.

The practical housewife is ever criticising architects for not giving sufficient cupboards; but do they take into account the fact that this built-in furniture is not thrown in gratis with the house?

Finally, we may point out to those who start in a modest house, such as has been described, that future expansion may be necessary. The wife may want a nursery, the husband his study; so a plan which lends itself to the possibility of additions, without serious alteration to the fabric, will in the long run prove the most economic proposition.

The Crown Prince of Sweden paid a visit to the Architectural Association on Friday last and spent some hours going carefully through the school curriculum, and examining the works of various years. He expressed surprise at the rapid progress made by first year students, and was particularly pleased with the colour work being done in the schools. He offered his support to any scheme for an interchange of Exhibitions of Sweden.

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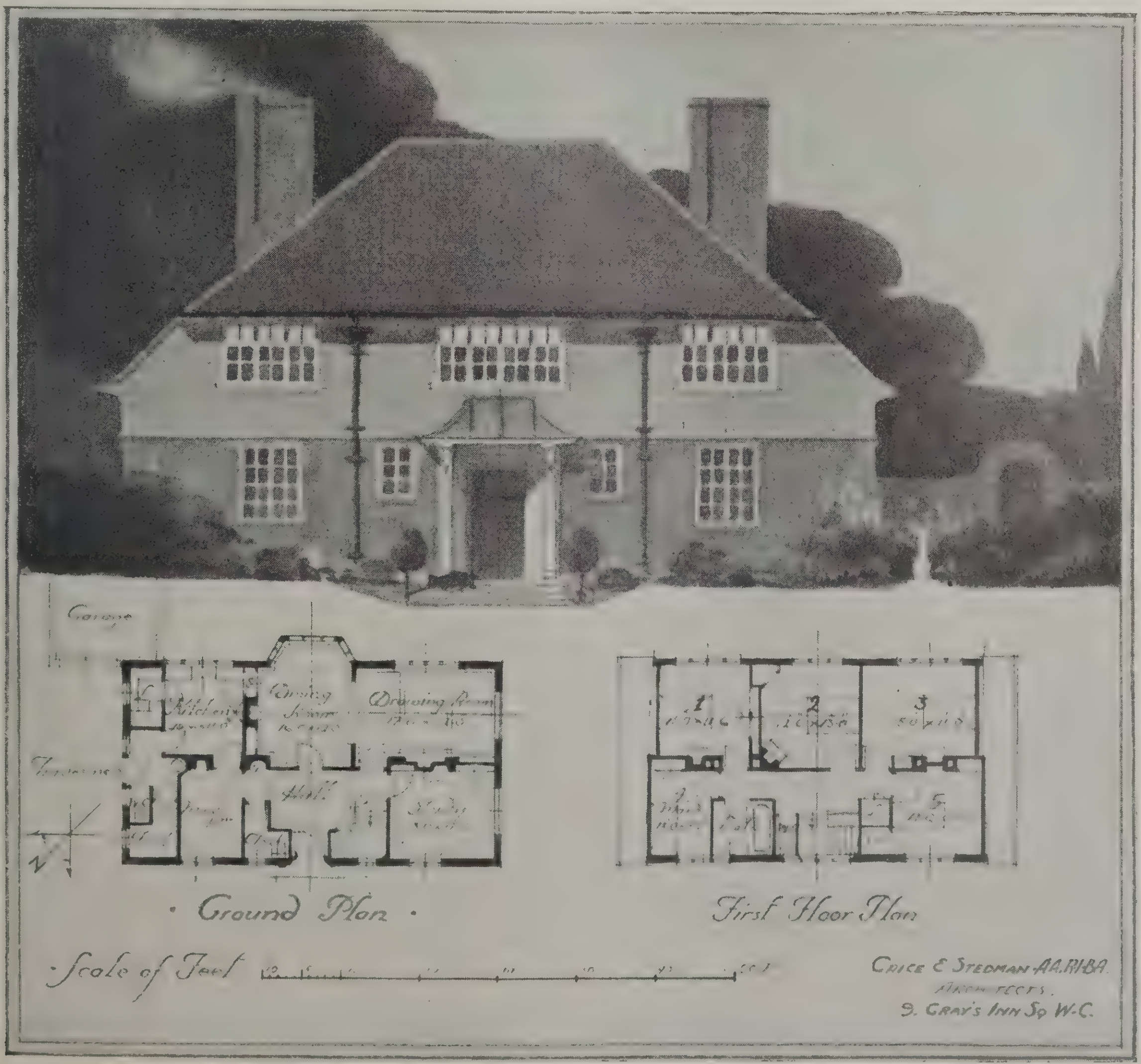


BUNGALOW AT BOXMOOR. A. W. S. Cross and Kenneth M. B. Cross, Architects.

Royal Institute of British Architects.

The fourteenth general meeting (ordinary) of the session was held at 9 Conduit Street, W., on Monday, May 28. Mr. Paul Waterhouse, M.A., F.S.A., president, in the chair.

The Hon. Secretary, Mr. Arthur Keen, announced the death of Robert William Collier, elected Associate 1881, Fellow 1890, Tite Prizeman 1881; Harry James Gee Smith, elected Associate 1897; George Harry Mael Trew, elected Associate 1894; Edward Langridge Lunn, elected Licentiate 1910; Henry Thomson, elected Licentiate 1911; Sir James Lemon, elected Associate 1866, Fellow 1873, and placed on Retired Fellows' List 1912.

Mr. Delissa Joseph, F.R.I.B.A., then read a paper, of which we here give an abstract, on

BUILDING HEIGHTS AND ANCIENT LIGHTS.

Some forty-five years ago London was startled by the erection of Queen Anne's Mansions at Westminster. It was the tallest secular building that had ever been erected in London.

At that time there was nothing to prevent the erection of such a building, except the Law of Ancient Lights, and, as a matter of fact, a famous action was brought against the building owners to prevent them injuring the access of light to the Guards' Chapel, and the building in the immediate neighbourhood of the Guards' Chapel was cut back, and this cutting back is one of its ugliest features.

The only revenge which the public could take was to call the building "Hankey's Folly," notwithstanding which it evidently supplied a want and became, and still remains, a very successful and convenient block of residential flats.

Shortly before 1890 the building now known as the Hyde Park Hotel was erected on the south side of the Park, to an unusual height, and as a result there was an outcry against the erection of high buildings. The building itself, in the opinion of many, presents a very fine, and, indeed, in certain conditions of the atmosphere, a very picturesque block, as seen from Hyde Park.

However, the effect of the outcry was that, when the London Building Act of 1890 had been drafted, clauses were introduced giving to the London County Council the control of the height of buildings, the maximum being fixed at 90 feet. In the Act of 1894 this was reduced to 80 feet from the pavement level, plus two storeys in the roof, unless the consent of the Council were first obtained to any greater height. Should the latter give their consent to such increased height, it was necessary for the building owner to serve notices on all surrounding parties within a distance of 100 yards, so that their objections to the increased height might be considered by the Council.

The discretion left by the Act of 1894 in the hands of the L.C.C., by reason of its terrors, remained practically a dead letter until 1921.

In 1920, when the great demand for business accommodation in the centre of London which had arisen after the Armistice was inadequately met by the existing buildings, a very suggestive paragraph appeared in the estate market column of "The Times," the writer asking whether, as London was obviously unable to accommodate its business, the time had not arrived when the London Building Act of 1894 should be so modified as to allow the erection of higher buildings.

The lecturer followed the suggestion up by addressing to that newspaper a series of letters in which he developed the idea of higher buildings, at the same time drawing attention to the fact that these could be obtained, if the County Council exercised the discretionary powers which it already possessed, without the need of making any alterations in the Act of Parliament.

This correspondence aroused a great deal of interest. In 1920 Mr. Delissa Joseph read before the R.I.B.A. a paper entitled "Higher Buildings for London."

Immediately after the reading of the paper the Institute appointed a Building Act Committee to study the Building Act as a whole, and, incidentally, the question of higher buildings. This Committee held numerous meetings, and studied the question of higher buildings from every point of view, and arranged a series of conferences. After an exchange of views, the Committee presented to the Council of the Institute their report, favouring the erection of higher buildings in London, recommending 120 feet in streets, and 150 feet facing parks and the riverside, and recommending provision for assuring fire resistance, fire escape and sanitation.

This report was presented to and rejected by the then Council, and subsequently presented to and rejected by a general meeting of the Institute, and the Building Committee was discharged before it had completed its functions.

In the meantime the subject had aroused an enormous amount of attention and public interest.

This publicity had the effect of inducing the architects of several buildings which lent themselves to a greater height than the normal to apply to the County Council for consent to increased height.

One building was sanctioned 100 feet in height and two others 110 feet in height. The Bush Building, designed by Messrs. Helme and Corbett, was subsequently erected with a height on the Strand frontage of 106 feet, with a height on the return frontages of 124 feet, and this building, it is understood, is to have a central tower, some day, which will be 144 feet above the street. We have thus gradually climbed, in three years, from 80 feet to 110 feet, and from 110 feet to 124 feet.

Africa House, Kingsway (Messrs. Trehearne and Norman, architects), is 106 feet high, the increased height being obtained by the setting back of the vertical face of the building above the 80 feet so as to be within an angle of 75 degrees therefrom, thus very ingeniously attaining height and dignity without technically encroaching upon the terms of the Act.

The arguments against higher buildings have been that they would be unhealthy, that they would be unsafe, that they could not be attacked adequately in case of fire, and that they would be unsightly.

In the addresses which Mr. Delissa Joseph made on behalf of the Building Act Committee of this Institute in connection with the conferences with the various public authorities, he traversed these criticisms, pointing out that, so long as there were no internal courts, high buildings would not be insanitary; that so long as modern methods of fire resistant construction were employed, they would be as fire resistant as lower buildings, and that with alternative staircases as means of escape, they would be no more difficult to escape from than lower buildings; that the objection that if a fire-escape staircase is outside a building it might be dangerous to use it in unfavourable weather could be met by the fire-escape staircase being placed inside the building; that fire attack could be accomplished by building in the structures permanent dry stand pipes, with hose at each floor level, and that at the point at which the water pressure ceased from the mains the water could be carried to the higher levels by automatic electric pumps, such as are employed, for similar purposes, in St. Paul's Cathedral.

There should be no apprehension as to amenity, because it was obvious that if American architects can produce "sky-scrapers" 600 to 700 feet high which were things of beauty, British architects would have no difficulty in producing buildings 150 feet high which would be of real architectural interest.

Higher buildings for London will not involve, as some of the critics allege, the construction of great rows of towering buildings of monotonous sky line, as, by reason of the necessary restriction which will be placed upon such buildings by the falling in of leases, very gradually, their appearance on the landscape will only be occasional for many years to come.

The case for increasing domestic accommodation facing parks, open spaces and the riverside is almost as strong.

The subject of higher buildings is likely to soon again reach a practical issue, because the present Council of the Institute have reappointed its Building Act Committee, with instructions to study the whole of the Act of 1894 in the light of the needs of modern practice, and this Committee, which is now sitting, has already given some attention to the topic of higher buildings. It will probably be found, when it presents its report to the Council, to recommend a more generous administration of the present Act, although it may not be prepared to go quite as far as the Building Act Committee which was first appointed.

The broad principle of these recommendations will probably be found to take some such form as follows:—That in streets 40 feet in width, buildings should be permitted up to 60 feet in height; that in streets 50 feet in width, buildings should be permitted up to 75 feet in height; that in streets 60 feet in width, buildings should be permitted up to 90 feet; and that in streets 80 feet in width, buildings should be permitted 120 feet in height; the broad principle being that the height of the building may be half as much again as the width of the street. The City, by reason of its peculiar circumstances, would still be allowed to put up 80-feet buildings in any street, however narrow, provided it was constructed before 1862, subject to the surrounding ancient lights, but it would have the advantage, in its 80-feet streets, of being able to erect buildings up to 120 feet in height.

It can no longer be contended that a building half as high again as the width of a street will darken the opposite buildings, as it has recently been laid down in the case of Semon and Co., Ltd., *versus* the Bradford Corporation, that a building 73 feet high in a street 45 feet wide leaves the opposite owner in the enjoyment of a sufficiency of light, and the judge, in this case, therefore refused to grant an injunction.

If the scheme being discussed by the Building Act Committee is adopted, it will take away the privilege which exists under the present Act, which allows a building 80 feet in height to be erected in any street, provided that street was formed before 1862, however narrow that street may be, so that a concession in the present Act, which may become a nuisance, will be removed.

With regard to the question of buildings facing parks, open spaces and the riverside, it is proposed that buildings 150 feet high should be allowed, and also in such open positions as Hanover Square, which is 280 feet wide; Trinity Square, 360 feet wide; and in Lincoln's Inn Fields, which is 640 feet wide.

This modified scheme, if adopted by the Council, would meet many of the criticisms of the opponents of higher buildings, and would make it possible, in course of time, for London to attain, in its present thoroughfares, such an appreciable increase of height as will go a large way to meet the demands for increased accommodation.

One of the results of the adequate development of an inadequately developed London would be that the assessment of London would be gradually increased.

The proposed amendments, if incorporated in the new Consolidation Act, instead of leaving the question of heights to the discretion of the London County Council, would definitely legalise the proposed heights.

But concessions with regard to the height of buildings would only be of qualified value so long as the development of London is held back by the Law of Ancient Lights.

The Law of Ancient Lights is founded upon the old Prescription Act of 1832, which, shortly, gives the right to a window being regarded as an ancient light if it has uninterruptedly enjoyed the access of light for a period of 20 years.

One advantage which the Prescription Act offered was in fixing the period which constituted the right, because, before that Act, the definition was that the light should have been enjoyed "during time whereof the memory of man runneth not to the contrary," which period was at one time fixed as the year 1189, on the first day of the reign of King Richard the First.

The oppressive application of this Act has, over a long period of years, been largely covered by Case Law, and up to the time of the famous Colls case, in 1904, an angle of 45 degrees was generally regarded as the measure of ancient light to which a window was entitled.

The Colls case modified the position by its being defined by the judgment that a man was only entitled to a certain amount of light "sufficient for the ordinary purposes of mankind," but, as this description was not defined by the Judges in angles, it has been the general practice, since the Colls case, to make the definition an angle of 50 degrees; but this definition has been materially overruled in a recent case, and therefore the position with regard to this subject is still in a very fluid state.

The latest dictum is that what has to be established is not so much what you take away as what you have left, and that what is left should be sufficient for the ordinary notions of mankind.

It has been contended that if 1 per cent. of the total light reaching a given window-sill, from an unobstructed horizon, penetrates to the darkest part of the room behind same, a sufficient amount of light remains. The credit for this method of calculation belongs to Mr. P. J. Waldram.

Beyond this, injunctions have been granted in cases where the plaintiff only fears prospective damage, even before the buildings in question have been either demolished or re-erected. These are known as *quia timet* actions.

What is needed is the establishment of a legal procedure which, whilst protecting all existing rights of surrounding owners, will enable the building owner definitely to ascertain his position before he undertakes the burden of his work.

Special efforts have been made from time to time to deal with this difficult subject.

In 1893 a report upon the subject of Ancient Lights was prepared and issued by the R.I.B.A. Science Standing Committee. The sting of the report was in the last clause which provided "that no building erected after a certain fixed date shall acquire any rights of light over neighbouring property." This clause was condemned in the course of the debate which followed and the report was referred back.

In 1898 the Society of Architects prepared a petition setting out the difficulties which the then condition of the Law with regard to Ancient Lights placed in the way of building owners and urged "that a Parliamentary Committee be appointed to inquire into the present Law with regard to Ancient Lights with a view of saving the large amount of money being expended in determining the rights of owners in regard to same." The deputation which presented the petition was received by the then Lord Chancellor, the Earl of Halsbury, who informed the deputation that he would give the matter his careful consideration. Nothing seems to have resulted from this action.

In 1900 Mr. Fletcher Moulton, K.C. (afterwards Lord Moulton), Professor Beresford Pite, and Mr. J. Douglas Mathews read papers before the Institute on the question of reform in the Law of Ancient Lights.

Mr. Fletcher Moulton, in his paper, argued in favour of compulsory purchase of rights of light, on the same lines as compulsory purchase of land when required for public improvements or railways. He also advocated that the Court should be strengthened by having architect-assessors, in the same way as the

Admiralty Court has the aid of the Trinity Masters. He further suggested that the Court should have wider powers, which would enable it, with the aid of the assessors, to adjust such cases on terms such as "honest and reasonable men, with practical knowledge, would arrive at, as a proper solution if the case were to be settled outside the Courts, instead of inside."

The outcome of this paper's discussion was the formation of a Joint Committee, appointed by this Institute and by the Surveyors' Institution. The Committee included besides Mr. Fletcher Moulton, Mr. Douglas Mathews, Mr. Edward A. Gruning, Professor Roger Smith, Mr. (now Sir) Alex. Stenning, Mr. A. T. Stewart, Mr. H. Chatfield Clarke and Mr. G. M. Freeman, K.C.

The result of the work of this Joint Committee was the production, in 1903, of an Ancient Lights Bill to amend the law relating to easements of light, which was read for the first time in the House of Commons on June 22, 1903.

There seems to be no record of what became of this Bill, nor why it did not proceed beyond the first reading.

In 1918 the Council of this Institute, at the suggestion of Mr. H. T. Hare, attempted to deal with one aspect of this matter by drafting a Bill having for its purpose the preventing of the acquirement of new rights of light, but it is now generally recognised that this Bill would have had no chance of becoming law, and that, if it had become law, it would have resulted in grave hardship in the course of time.

The only practical attempt which has so far been made to deal with this matter, by procedure outside the Law Courts, has been the work carried out by the Dean of Guild Court in Scotland, before which body all plans of proposed new buildings are placed to enable it to decide, as between the respective ownerships, what would be the proper height of frontages and the height and width of areas, so as to afford mutual lighting facilities to adjoining and opposite buildings.

The present Council of the Institute have recognised the urgency of this question of Ancient Lights, and requested the Practice Standing Committee to investigate the matter, with a view of drafting a Bill.

Mr. Joseph said he expected it will be found that the proposals of the Ancient Lights sub-committee, which they will submit to the Council, will probably take some such form as follows :—

Two months before commencing to build or pull down or alter his premises, the building owner must serve upon the adjacent and surrounding owners who may be affected by the height of the new buildings notices of his intention to build, and he must exhibit to them the drawings showing his proposals.

The adjoining or surrounding owner having the enjoyment of ancient lights will appoint an architect to represent his interests to meet the architect of the building owner. The two architects will then appoint a third architect as arbitrator. If the parties are unable to agree upon the arbitrator, the arbitrator is to be appointed by the President of the Royal Institute of British Architects.

The arbitrator will examine the plans, the site and the surrounding premises and the ancient lights alleged to be affected. He will then issue an award in which he will first define the line within which the new buildings may be erected, and which will not, in his opinion, affect the ancient lights which the surrounding owners possess, and he will further define that, if this light is affected, by raising above the defined line, what compensation shall be paid to the surrounding owners.

The building owner will therefore have the option either to keep his building within the line defined by the arbitrator or to pay the awarded compensation for encroachment.

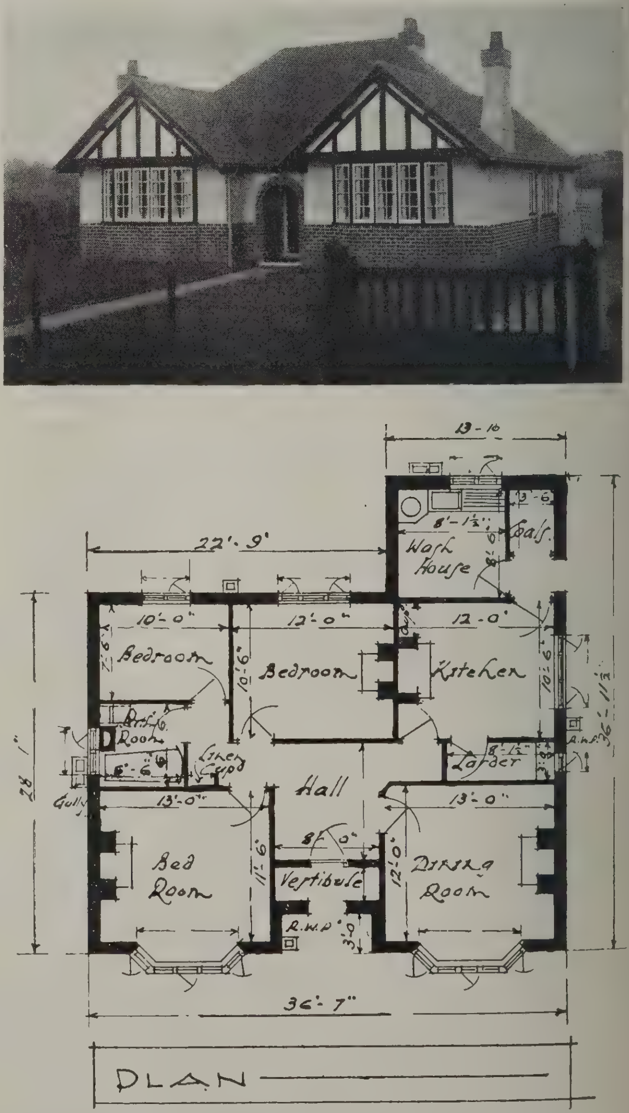
As it very often happens that a small alteration in a surrounding owner's building by the enlargement of a window may give him some measure of increased light to compensate for some of the loss, in such cases the arbitrator will have power to direct that the building owner shall, at his own cost, execute these works of improvement on the adjoining premises.

Now here is a practical scheme which, if adopted by the Council, will completely protect owners of *bona fide* ancient lights, and which will enable the building owner, before he starts his work, to know precisely what he may do, and what he will have to pay in order to do it. He will therefore be able to proceed with his work with his mind free from the constant fear of writs for injunctions, and his architect will be able to sit down to his design with an untroubled mind.

It is not sufficient to ask for a waiving of the present administration with regard to building heights, so long as the application of the Law of Ancient Lights is administered as at present, and it is futile to pursue the question of building heights without at the same time attacking, in a common-sense way, the question of ancient lights.

Discussion.

The Rt. Hon. Sir William Bull, Bart., in moving a vote of thanks, said that he was quite a layman in this matter. But he had had the pleasure and privilege of knowing Mr. Delissa Joseph some thirty-five or forty years. He had followed the correspondence in the Press on the subject of high building with much interest. Perhaps he was rather prejudiced, for he felt he was a citizen of no mean city, and he watched the erection of a new building or alteration to an old one with the deepest concern. Personally he was always rather frightened by architects. He had never yet met with an architect who would do what he was told, or could not give a hundred reasons for going against the wishes of the client. Architects never agree amongst themselves ; they never seem to have a composite opinion. Many years ago, as chairman of the Bridges Committee of the London County Council, he had Hammersmith Bridge painted a bright green. This caused a tremendous outcry. William Morris, when asked to express an opinion, declared it should have been painted black as it was iron. The R.I.B.A. Art Committee protested : Mr. Alfred Waterhouse said it ought to have been painted grey. Shortly afterwards it was necessary to paint the Albert Bridge ; so he informed the Art Committee that he would paint the eighteen panels any colour they could agree upon amongst themselves. But the Committee had to admit later that they could not arrive at any agreement. That was the sort of divided opinion existing among architects on the subject of higher buildings. He believed the majority of foreigners are enormously impressed with the lowness of London buildings. That was a result of deliberate intention, and therefore it was a serious thing to alter. Mr. Delissa Joseph had laid down a very good case for discussion—especially as to open spaces where they certainly might go up to greater height. The value of sites was still mounting. In the matter of ancient lights, the Colls action caused a revolution, and had been the cause of much bad building. Mr. Joseph's scheme for arbitration seemed to him somewhat complicated and came down finally to the fact that recourse would have to be had to the High Courts. Personally, he always felt doubts as to whether it was not better to keep to the High Courts than to resort in the first place to these amateur courts. The



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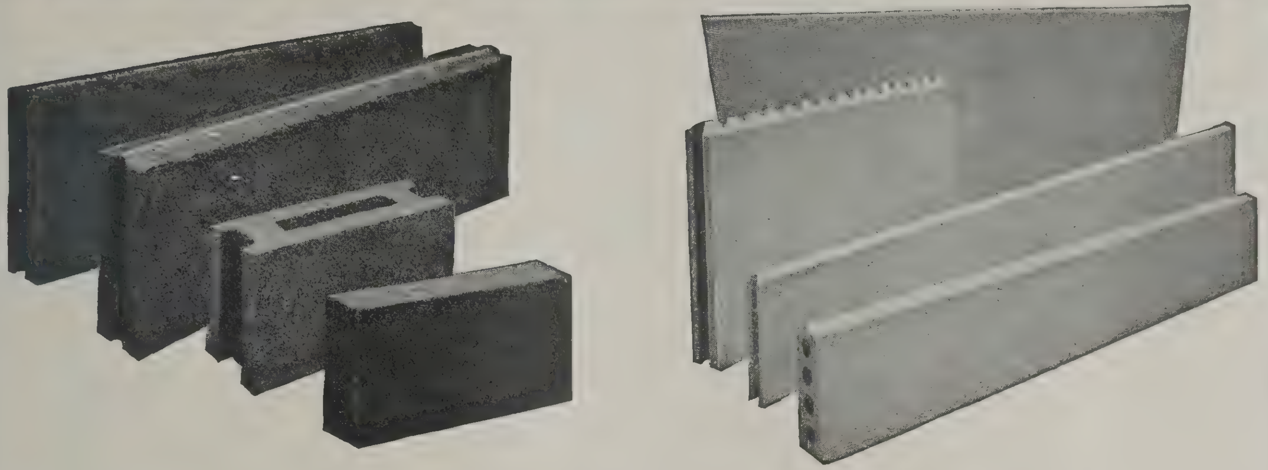

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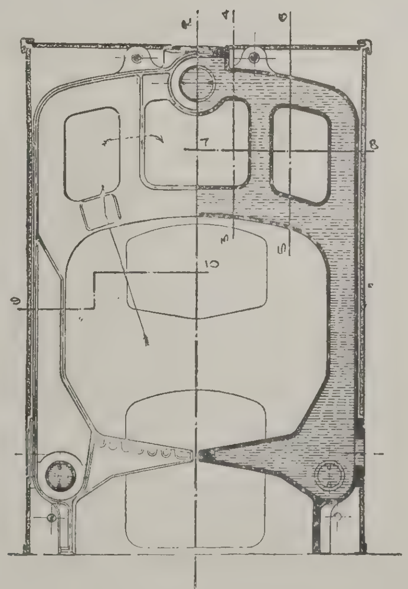

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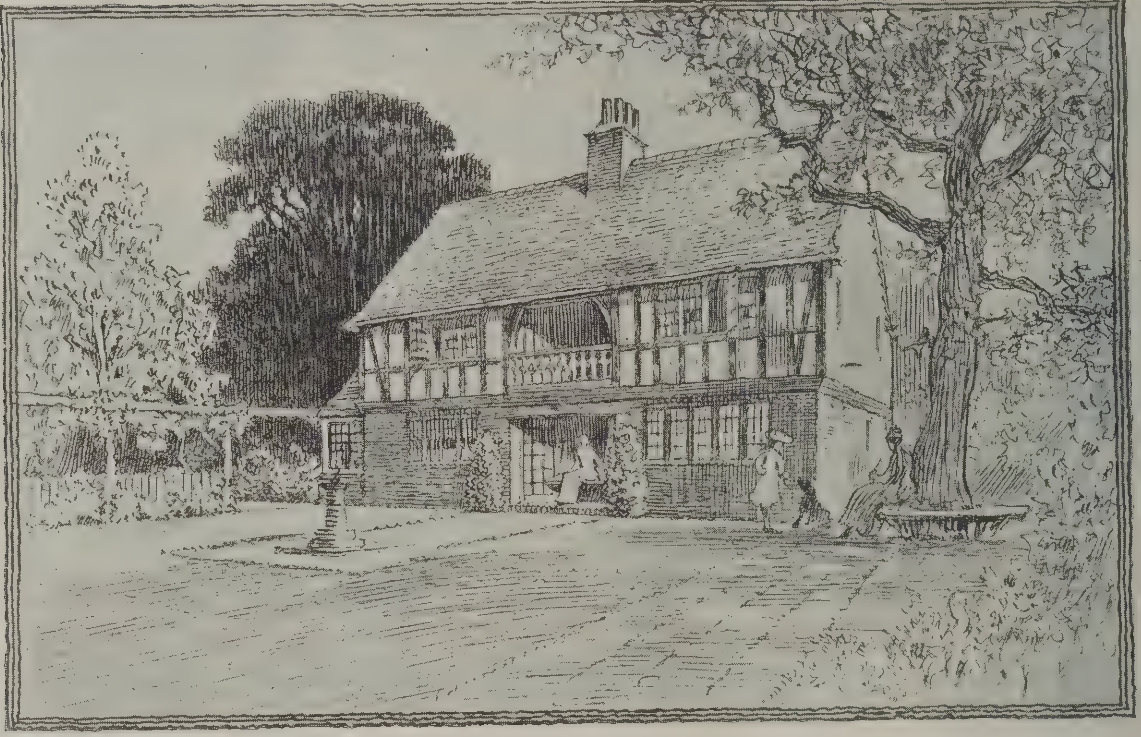
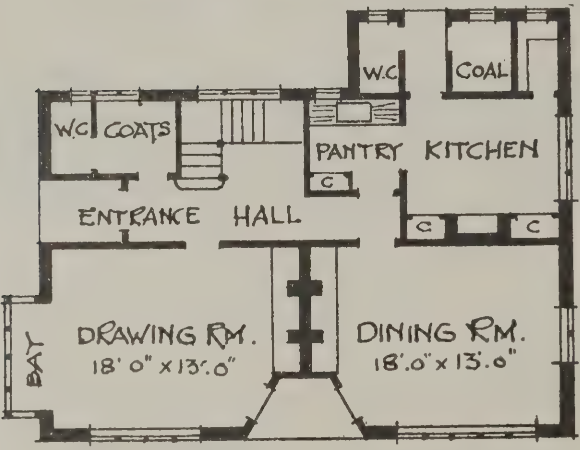
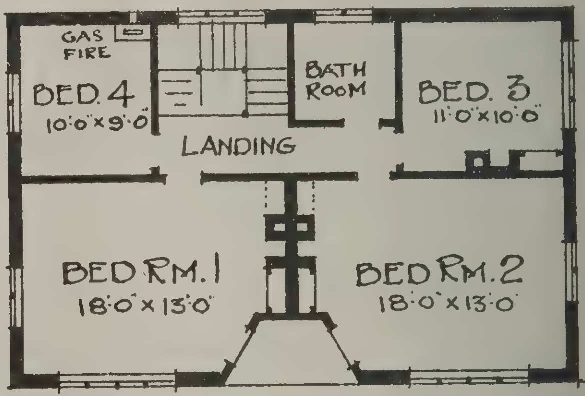


SMALL HOUSE. R. DAVIDSON, Architect. [*By courtesy of "Homes in Metroland."*





London Building Act of 1894 he regarded as a great charter which had done a great deal for London. Having regard to the position of things in 1894, he considered that Act had worn well. Now, however, it needed codifying and putting in order to correspond with present conditions. Mr. Delissa Joseph had wondered what had become of the proposed Bill of 1903. That Bill was stillborn. In those days every Bill received a first reading, and there was never a division on it. But, like many private Bills, it was not taken up by the Government, and was never heard of again. The subject of ancient lights was frightfully difficult. The rights really depended on "getting there first." Doubtless a satisfactory solution would be arrived at, but it will take a long time.

Sir Sydney M. Skinner, J.P., who seconded the vote of thanks, said he had recently spent three months in America looking over buildings. He could not conceive any difficulty in permitting in London a building up to 125 feet high on wide thoroughfares. Particularly did the retailers want big open floors as in America, where they allowed uninterrupted views from one end of the building to the other. To achieve this without producing the effect of a tunnel the ceiling has to be of some height—certainly the building requires to go up more than 80 feet, unless the number of floors is to be very limited or those floors made to look low. Speaking as a member of the retail trade, he might say that he was very little concerned with regard to light, because he considered artificial light was as excellent as, if not better than, half-subdued natural light. He did not, however, ask for tall buildings along narrow streets. The fire difficulty was undoubtedly got over in America. Because panic was usually caused by fear of the unknown, he believed there was less danger of panic in one of the huge open floors of American stores than in our own small buildings. In the re-building of Regent Street a tremendously fine opportunity had been lost: the shops would have been infinitely finer if the architects had enjoyed a greater scope in carrying their buildings higher. The street has now been stereotyped for perhaps a hundred years. The retail tradesman wanted to attract foreigners by offering them something in the way of a store different from what they would find abroad.

Professor Beresford Pite said there was no denying the fact that the law of ancient lights has preserved for the dwellers of London as a whole an amount of light and air which it was well to remember with gratitude. If Mr. Joseph had had his way, "Hankey's Folly" would have been faced by "Delissa Joseph's Folly." The poor deserved consideration no less than the millionaires. Everyone would grant that on an open site there could be no possible objections to a building as high as the Tower of Babel. But architects were bound to consider the fact that a building which fronts an open space might have sides and a back very differently placed as to width of street. Regent Street used to be the sunniest, pleasantest shopping thoroughfare in London—it was 90 feet wide, and its shops were about 45 feet high. Now the buildings have been forced up to 80 feet in height. It must be remembered that London remained a network of narrow streets. If the public listened to Mr. Delissa Joseph, the difficulties of living there would be increased. London was, of course, bound to expand. Already the shopping centres are moving outward—to Kensington, Brixton, Holloway, and so on. The need for extending upwards had not been proved. Mr. Delissa Joseph had drawn across their path the red herring of ancient lights, a red herring that was thoroughly stale and only affected the lowliest appetites.

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Mr. Raymond Unwin, in a written communication, contended that the conclusive reason why London should avoid high building was that there was nothing to be gained by them to-day. Any advantage which the individual owner of a building plot or building might derive from increasing the height of his structure would be directly obtained at the expense of the public, which must suffer all the inconvenience and delay of the resultant traffic congestion and must find the money to widen the streets and relieve the congestion. To double the average height of the buildings would necessitate doubling the width of the streets. The total area on which to build would be very greatly reduced. In America there was a motor car for every ten people. In this country the number was so far very much lower, and we must expect it to be enormously increased. The Woolworth Building in New York accommodated 14,000 people. If each of these had their own car waiting for them at the end of the day there would be a queue five miles long. Any increase of height in London must produce the most serious congestion and necessitate a lavish outlay. All over America building heights were now being curtailed. It was realised that in the end there was no substantial advantage to show.

Mr. W. R. Davidge said they must all admire the pugnacity of Mr. Joseph, who again and again brought up the subject of higher buildings. Architects could do a great deal to meet the views of commercial men as to increased internal spaces without raising the height. But they must take care that London is not spoilt.

Mr. W. W. Scott-Moncrieff thought the public had still hopes in this matter that it was possible to receive 9d. for 4d. They did not realise that to increase the population 25 per cent. would mean the introduction of all sorts of problems. Another solution than that of heightening the buildings: London was the only capital which has developed solely on one side of the river. Surely there existed no difficulty in developing on the south side also. Let them imagine a fine embankment there. London could at last be seen with the sun on it. It was open to doubt whether we wanted those vast stores for which the seconder of the vote of thanks was sighing.

Professor S. D. Adshead congratulated the lecturer on his pertinacity. The matter of the relation of width of streets to height of buildings was a most important one. There was really no intricate detail about such calculations, however much it might seem to the contrary. The whole question was one for the man in the street. London was an old town, built up of narrow streets. A limit of 80 feet was higher than that of Paris or Berlin. To compare London with New York was beside the question. But New York has come down from 600 feet to 250 feet.

Mr. A. W. Bossom, of New York, said that some years ago everybody in the States wanted to erect tall buildings, now they were trying to do away with them through the Zoning law. The sole reason they continue putting them up is for the sake of the advertisement. He himself had just designed one to be erected on the plains of Texas to a height of 450 feet. But 97 per cent. of New York was covered with buildings of three storeys or less. London would be well advised to distribute the height of its buildings. In the States they were trying to build up new communities rather than indefinitely expand the existing ones.

The vote of thanks on being put to the meeting by the President was passed by acclamation.

Mr. Delissa Joseph having acknowledged the vote the meeting terminated.

The next meeting will be held on Monday, June 11, at 8 p.m., when the Scrutineers' report on the election of Council and Standing Committees for Session 1923–24 will be read and an election of candidates for membership will take place.

The British Architects' Conference will be held in Edinburgh from June 13 to 16. A very interesting programme has been arranged, and it is hoped that a large number of Members and Licentiates will endeavour to attend.

Scavenging the Sky.

It appears, from a lecture delivered by Sir Arthur Holbrook, M.P., before the London Society, on Thursday, May 24, at the House of the Royal Society of Arts, that public indignation against the nuisance of coal smoke in London is an old story. In 1307 a man was executed for the crime of burning coal, and at intervals through succeeding centuries complaints, official and unofficial, have been made. In 1683 Keepe described Westminster Abbey as being "so shrivelled and parcht" by coal smoke that "little of her former beauty now remains." To-day the damage is incomparably greater. Stones used for the maintenance of the Abbey only some twenty years ago are already being eaten away by the sulphurous acids in the air. Nor is this only a question of the enormous cost of surface renewal alike of modern buildings and of ancient monuments in British towns and cities; the architect, the artist, and every lover of things beautiful joins with the taxpayer and economist in the indictment of urban air pollution.

The damage to buildings, as Sir Frank Baines, Director of Works of His Majesty's Office of Works, has said, is mainly due to the sulphurous and sulphuric acids contained in the products of raw coal combustion; and their injurious effect is materially enhanced when the acids become united to the tarry and more adhesive particles of soot in smoke. The cost of coal smoke to the nation was in this respect stupendous. The recent appeal for half a million to save Westminster Abbey would never have had to be made but for the unscientific way in which this nation burns its fuel. The Houses of Parliament alone demanded about £2,500 a year for their mere surface renewal, and, as Sir Arthur said, the Houses of Parliament are responsible for sufficient national expenditure without the addition of this item. So also damage to vegetation is caused in different ways both by the visible dark particles in smoke and by the invisible sulphurous acids. The former obscure some of the rays of sunlight which are essential to the life of plants, and also choke the tiny pores in leaves through which the plant should breathe, while the sulphurous acids are carried into the soil by rain and render it infertile.

The destruction of vegetation by atmospheric impurities has, moreover, not only its aesthetic side; it seriously affects the availability and price of essential vegetable foods to city populations. The smoke problem is therefore an economic problem, an aesthetic problem, and a health problem. Atmospheric impurities injure the lungs and, especially when smoke fogs occur, have a measurable effect upon the death rate. Smoke, moreover, shuts out the sunlight from our towns, thereby depriving the great mass of the nation of the best tonic, mental and physical, known to mankind. The value of pure sunshine—not filtered through a veil of smoke—has been admirably demonstrated by the sun-treatment of disease so successfully practised not only in Switzerland but in this country. We have the sunshine in Britain if only we would avail ourselves of it.

But atmospheric pollution is unnecessary, though it is worth remembering that atmospheric pollution consists of more than visible smoke—the tarry particles which darken the sky of every British town. Of these we could be rid by using smokeless solid fuels in place of raw, untreated coal. But the sulphurous acids, the invisible acids that help to poison vegetation and corrode the stone of buildings, would still be present in the air if smokeless solid fuels were employed. The elimination of both smoke and invisible impurities is only possible by using gaseous fuel —or electricity, wherever it is produced by water power, internal combustion engines, or any other method not involving the burning of crude coal in generating stations.

The knowledge of fuel experts is now such that we may hopefully look forward to a time—in the near future—when it will be possible to eliminate smoke alike from residential and from industrial areas. The need is for a stronger body of public opinion on the subject than has ever yet existed and for effective legislation involving none in hardship.

It will not, of course, be possible immediately and universally to convert all grates designed for burning coal in its raw state, so that in future none but smokeless fuels are consumed. But in new houses—and there will be many built within the next few years—there is no reason why provision should be made for the use of smoke-producing fuels. The old coal-fired kitchener should certainly be abolished, and it will be disappointing if steps are not taken to limit the smoke-producing fires in these houses to one at most per house. This has already been proved a practicable proposition, appreciated by the occupants of every smokeless dwelling.

In dealing with industrial smoke it is possible to be more drastic. At present the law against smoke emission is too easily evaded, lacks severity, and is not supported by efficient machinery for its administration. Manufacturers can usually escape the fines, on the rare occasions when the sanitary authorities fulfil their duty of prosecuting offenders; or sometimes they prefer to pay rather than go to the supposed expense of smoke prevention. Herein is seen the error of the factory owner. For in reality there is no doubt that by skilled stoking, which can enormously reduce the smoke nuisance, the manufacturer would profit. Skilled stoking means the utilisation of far more of the potential heat in coal and a reduction in that waste of fuel which smoke invariably represents. It would not therefore be a hardship to have a really effective law instead of the present inoperative absurdity. Given a less apathetic public, there is no reason why new legislation should not give this country the same purity of air as has already been secured for Essen, Pittsburg, and New York.

The public should insist on legislation—the nature of which Sir Arthur outlined to show it need involve no hardship for industrial smoke-producers—and realise in this country an ideal which had elsewhere been proved attainable.

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Architects.

From an original Etching by
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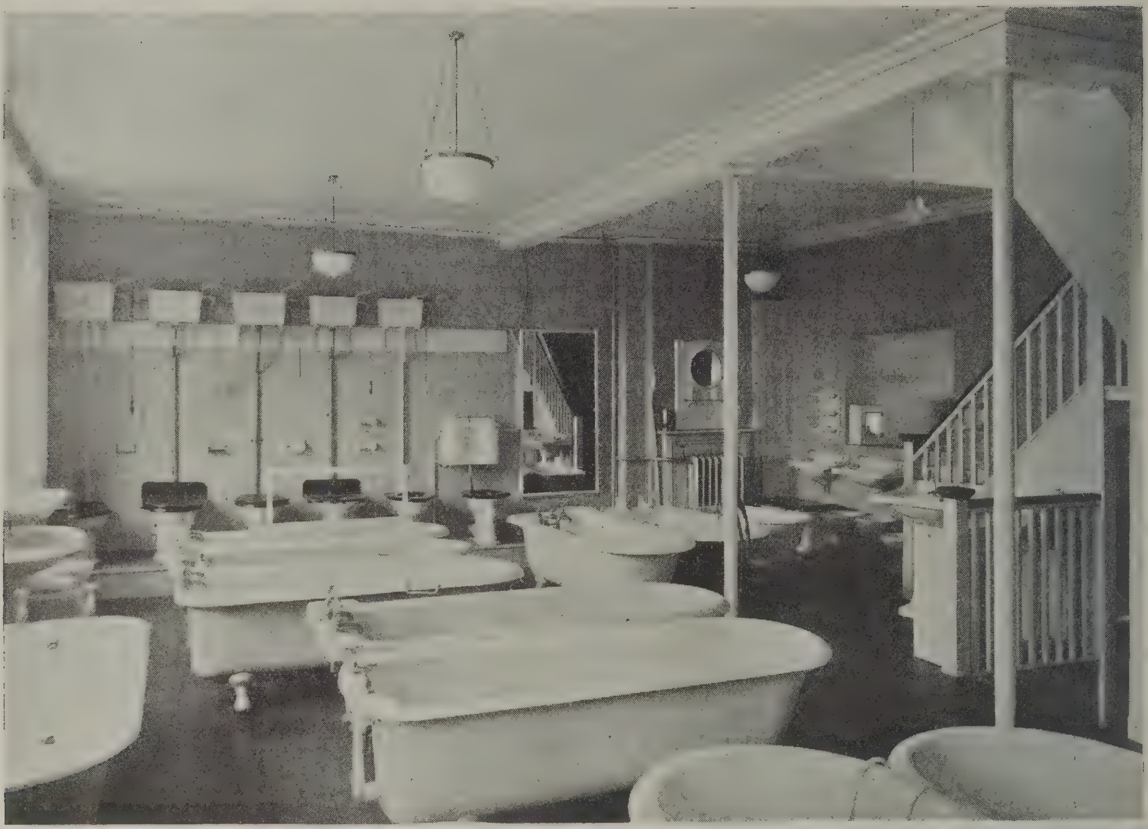


A CORNER OF THE NEW SHOWROOMS AT 120 KING'S ROAD, CHELSEA, FOR THOMAS CRAPPER & CO., LTD.

The mere fact of a business having survived the sunshine and rain of seventy years seems to entitle it to a certain degree of respect. How much more so when at the end of that time we find it exhibiting all the activity, enterprise and self-confidence of a firm about to enter the arena! That is the position at 120 King's Road, Chelsea, where Messrs. Thomas Crapper & Co., Ltd., have just carried out a thoroughgoing scheme of enlargement and alteration which more than doubles their showroom space and gives them very greatly increased storage accommodation.

The firm was established in 1848, and soon established a high reputation both as brassfounders and as manufacturing sanitary engineers. Twenty years later Mr. Robert Marr Wharam entered the business—he became a partner in 1888, and chairman and one of the managing directors on the conversion of the concern into a limited liability company. Mr. Crapper died a few years ago. Mr. Wharam is still the guiding spirit of the firm, and his enthusiasm remains undiminished after half a century of close attention to detail. This fine tradition, so well and truly laid, should be in no danger of extinction, for in it has been brought up Mr. R. Gillingham Wharam, the son of the chairman, and himself director and works manager, who has been connected with the firm for twenty years, and has been thoroughly trained as an engineer.

Fortunately the enlargement and reconstruction scheme has not affected the heavily pillared portico, which, with the Royal Arms above, gives a certain quaintness to the building front on King's Road. These premises, by the way, besides possessing the very desirable quality of accessibility, have also the æsthetic delight of a good outlook, as their windows command a fine perspective view with Chelsea Hospital as the stately focal point. The entrance floor has been re-arranged so as to afford both ample space for the counter trade and ready access to a new staircase leading to the showrooms above, not to mention a waiting-room and the private office of the works manager. But it is in the showrooms that Messrs. Crapper have made the most conspicuous improvements. These are unusually well lighted, and considerable cunning has been used in arranging and grouping the sanitary goods to advantage. Things will be found here to suit every taste and pocket, whether it be in the matter of baths, closets, basins, sinks, towel rails, shelves, linen receptacles, or anything else which comes within the scope of a manufacturing sanitary engineer. Many of the designs are exclusive, and have been evolved to suit special requirements. Indeed it is somewhat of a revelation to find how widely ideas vary as to so simple a thing as, say, a fixed basin and its accessories—we noticed that black porcelain-finished taps seem to be fashionable, presumably because they cannot show discoloration—or a shower.

These showrooms, however, are only part of the improvements carried out over some six months. Messrs. Crapper were able to acquire the premises in the rear, and have practically rebuilt them from cellar to roof. The roof has been made to serve as storage space for goods like drain pipes. Most of our readers are doubtless aware that the firm do not confine themselves to the manufacture of sanitary ware. They might almost be called builders' merchants. They are brassfounders and manufacturers of ventilating and heating plant, hydraulic, steam and gas fittings, as well as lead, zinc, glass, colour and varnish merchants. A tour of their premises shows how greatly method can assist in the storage in bulk of multifarious awkward articles like baths and basins.

Messrs. Crapper, as we have already mentioned, are Royal Warrant holders. Over forty years ago they received a command to carry out sanitary work at Sandringham. In 1885 they received a Royal Warrant of appointment as sanitary engineers to King Edward (then Prince of Wales), and that appointment was continued when he came to the throne, and has been renewed by King George.

Forthcoming Events.

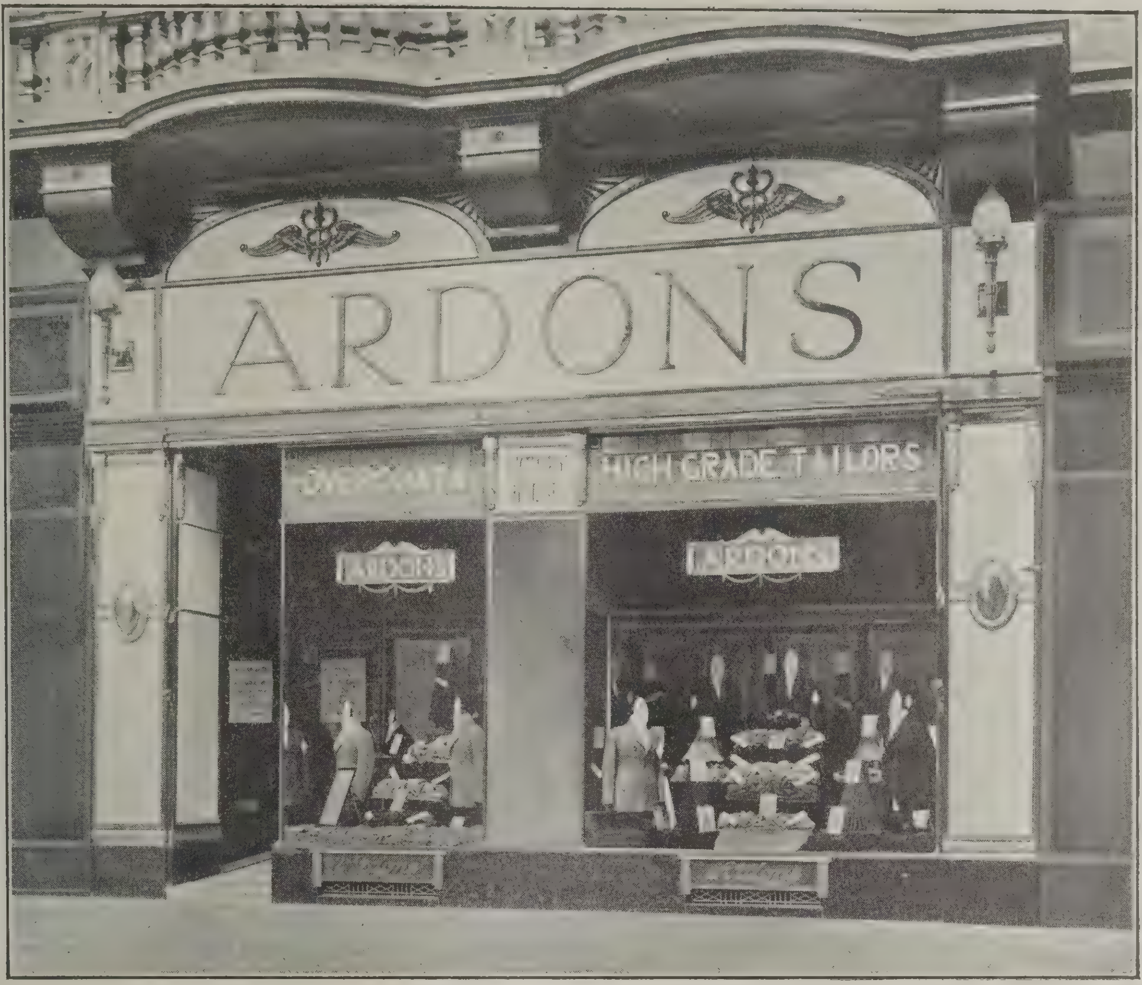
Friday, June 1.—Institution of Municipal and County Engineers. North-Western District Meeting at Rochdale. 2.45 p.m.

Saturday, June 2.—Royal Institute of British Architects. Visit to Hampton Court.

Friday, June 8.—Town Planning Institute. Annual General Meeting at 92 Victoria Street, S.W. 5.30 p.m.

Institution of Municipal and County Engineers. Scottish District Meeting at Stirling (two days).

A scheme for the provision of public swimming baths and a new fire station is again being considered by Greenock Corporation. The estimated cost for the complete scheme is about £45,000. The plans show a swimming pond of full size, with dressing accommodation, and a commodious fire station with living accommodation for the permanent members of the brigade.



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National Wages and Conditions Council for the Building Industry.

The National Wages and Conditions Council for the Building Industry, at its meeting on May 24, considered the award of the Arbitrator in respect of the recent application by the Employers for reductions in the rates of wages payable throughout the industry, and

RESOLVED :—

> That the hourly rates of wages payable to craftsmen and labourers engaged in the Building Industry shall be reduced to the extent set out in the schedule appended, the reductions to take effect on and from Saturday, May 26, 1923.

Craftsmen's Rates from June 1, 1922.

Grade Classifications.

Labourers' Rates from June 1, 1922.

	A	A¹	A²	A³	B	B¹	B²	B³	C	C¹	C²
Craftsmen's Rates from June 1, 1922.	1/8	1/7½	1/7	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3
Labourers' Rates from June 1, 1922.	1/3	1/2¾	1/2¼	1/2	1/1½	1/1¼	1/0¾	1/0½	1/-	-/11¾	-/11¼

Craftsmen's Rates on and from May 26, 1923.

Grade Classifications.

Labourers' Rates on and from May 26, 1923.

	London District	A	A¹	A²	A³	B	B¹	B²	B³	C	C¹	C²
Craftsmen's Rates on and from May 26, 1923.	1/7½	1/7	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3½	1/3	1/2½
Labourers' Rates on and from May 26, 1923.	1/2¾	1/2¼	1/2	1/1½	1/1¼	1/0¾	1/0½	1/-	-/11¾	-/11¾	-/11¼	-/11

The foregoing reductions do not apply to the following towns which, the Council has decided, are to be regraded as opportunity occurs without actually increasing the existing rates, and the alterations (if any) in the Craftsmen's rates now current will be as follows :—

No reduction (existing rates maintained) —

Southampton Portsmouth Southend-on-Sea.

One halfpenny per hour reduction (labourers in proportion)—

Norwich Kettering Wellingborough
Reading Bournemouth Brighton.

The above report is signed by Mr. A. G. White, Employers' Secretary; Mr. R. Coppock, Operatives' Secretary; and Mr. A. J. Lloyd, Clerk to the Council.

"The Architect" Fifty Years Ago.

May 31, 1873.

The Law Courts Again.

Burke says that a true statesman will, with the dignity which belongs to wisdom, proceed only in what he calls the superior orbs of politics. His experience and insight had shown him that there was in the end no better way of promoting the genuine interest of the State, and he was able to point to the condition of France, with its impending dangers, as evidence of what will result by a departure from this course. We are afraid that if Burke was living now, it would not be necessary for him to seek so far for an illustration. He would find in the administration of the Office of Works proofs enough. It is difficult, or rather impossible, for a man to follow Burke's advice unless he is governed by a principle which he can place above himself, and seeks not his own victory, but rather the success of it. Mr. Ayrton, on the other hand, always aims to make himself the central, the important, figure in every transaction with which he has to deal.

This characteristic of Mr. Ayrton's was fully exhibited last week when the question was raised why the works at the Law Courts were not commenced. For any effort to expedite matters, the public were given to understand they were indebted to the First Commissioner of Works; every delay was due to the Architect of the building, or, as he was termed, "the servant of the Office of Works." It was in the beginning of 1870 that the matter came into his (Mr. Ayrton's) hands, and he satisfied himself that what was necessary for the due administration of justice might be accomplished for £750,000. The report of the Commissioners was made on July 27, and although the end of July was not a convenient period for embarking on an important undertaking, this was for him (Mr. Ayrton) no obstacle. It was he (Mr. Ayrton) who called upon Sir Gilbert Scott to reconsider his proceedings, and to produce in consequence a better building for £264,000 than for £436,000. Such are some of the examples of the egotism which was manifested on this occasion.

The Leeds Corporation Improvements Committee last week decided, subject to the consent of the City Council, to accept tenders for the erection of 200 houses at Middleton, at prices ranging from £325 for the two-bedroom non-parlour type, to £337 for the three-bedroom non-parlour type, and £397 for the three-bedroom parlour type.

Competition News.

The President of the Royal Institute of British Architects has nominated Sir Robert Lorimer, A.R.A., F.R.I.B.A., as Assessor in the Birkenhead Art Gallery Competition.

Prizes of £5, 2nd £2, are offered by the local Horticultural Society for the best design for the Hassocks Garden of Remembrance. Plan and conditions may be obtained from the hon. secretary upon payment of 2s. 6d., which will be returned to competitors upon receipt of completed design.—Apply, Hon. Sec., Horticultural Society, "Milverton," Hassocks.

General

Mr. James Thomson, city architect, Dundee, has prepared a plan for a public library at Broughty Ferry, which is estimated to cost £7,000.

The President and Council of the Royal Academy have purchased, under the terms of the Chantrey Bequest, an oil painting, "Phil May," by the late Sir James J. Shannon, R.A.

Mr. A. B. Russell Taylor, of Bank House, 52 Baker Street, W.1, acted as quantity surveyor in connection with St. James' Palace Theatre, Buckingham Palace Road, S.W. (Mr. J. Stanley Beard, architect), which we illustrated in our issue of May 18.

Professor S. D. Adshead, F.R.I.B.A., who has had in hand the preparation of a local development scheme for Brighton, has been asked by the Town Council to prepare a report on the possibilities of converting the Aquarium into something more useful.

The Coventry Electricity Committee is recommending that extensions be carried out at the Sandy Lane Generating Station at an estimated cost of £44,188, this amount to include the £29,842 sanctioned by the City Council on April 24 last. The extensions to the building are to be carried out by direct labour.

The question of improving canal navigation from Birmingham to the sea was advanced on Monday last by the appointment, subject to approval by the Birmingham City Council, of a special committee with authority to expend a sum not exceeding £1,000 in securing expert advice and of meeting the cost of any enquiry they may make.

Mr. Neville Chamberlain, in a written reply to a question as to whether the Committee on the Price of Building Materials had taken any action on the recent increase of prices quoted for various kinds of building materials by the firms included in the National Light Castings Association, states :—"The Committee have asked for an explanation of the 10 per cent. increase, and a sub-committee is shortly going to Scotland to investigate the matter."

Trade Notes.

Messrs. Wilson, Lovatt and Sons, Ltd., the builders and public works contractors, of Wolverhampton, and successors to Messrs. Henry Lovatt, Ltd., have established a London office at Abbey House, 2–8, Victoria Street, S.W.1.

Boyle's latest Patent "Air Pump" Ventilators have been applied to H.M. Prison, Perth, to the order of the Prison Commissioners for Scotland; to the Maternity Hospital, Jubilee Road, Newcastle-on-Tyne; and also to the factory of Messrs. Jurgens, Ltd., Purfleet, Essex. They were supplied by Messrs. Robert Boyle & Son, Ventilating Engineers, Holborn Viaduct, London.

Holt's Patents, Ltd., Liverpool, are the fortunate possessors of a silent cistern, "The Swan," which is among the most efficient known to the trade. A noisy cistern is a domestic nuisance which many people endure only because they do not know how greatly it can be mitigated by the use of the right make of cistern. The number and character of the testimonials received from possessors of the "Swan" cistern is eloquent evidence of merit.

The Xetal Co., of St. Mark's Road, Mitcham, inform us that after numerous experiments they have been able to add certain ingredients to the latex of rubber which make it a practical product. Already very diverse uses for this new liquid rubber have been made, and others will almost certainly follow when longer time has elapsed to follow up preliminary tests. For example, it acts as an excellent damp and acid-proof medium for attaching valuable papers and decorations to walls and ceilings. Timber as well as plain brick or cement-rendered walls if so sprayed or painted become damp-resisting; distempered walls can be papered if pasted on with Xetal instead of ordinary paste; sash cords and ropes treated by immersion or brushing are impervious to atmospheric conditions. Xetal flows well, is practically colourless when dry, is non-inflammable, clean in use, and can be applied with any ordinary instrument, such as a brush, spray, aerograph, roller, etc., and possesses greater covering powder than paint.

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The Study of Planning.

There is no greater or more encouraging sign of modern architectural progress than the enormous improvement which has taken place in the quality of planning, for planning is the chief factor in architectural design. The history of architectural development goes to show that the elimination of mediæval methods of design was materially due to the fact that the architects of the Renaissance were not satisfied with exchanging one set of symbols for another, but founded their main conceptions on a carefully ordered system of planning which was in reality the greatest gift made by Rome to architecture. The only mediæval plan of note was that of the church and cathedral, and this is directly traceable back, stage by stage, to the prototype of the Roman basilica and in more Eastern lands to that of the dome borrowed again from Roman sources. On this groundwork, stage by stage and period after period, was developed the great Gothic conception of the church.

But when we study other mediæval buildings which have come down to us we find that there is little evidence of what we should designate as planning, unless indeed a building like the halls of the Netherlands bore a more or less close resemblance to the church in plan and arrangement. Outside a few works of this nature mediæval buildings appear to have been laid down with little thought or sense of possibilities arising out of grouping or arrangement. Their beauty, great as it often is, is the outcome of detail and of accident and their planning is chiefly interesting because of association.

The castle or fortified place, like the church, has a clear and definite meaning and purpose, but the scientific progress of mediæval times at a comparatively early state eliminated the necessity for a development of this type of building.

With the development of the Renaissance all was changed and the plan became the all important factor in design—the plan developed, wherever possible, on lines which bear a close resemblance to Roman prototypes and, like them, usually demanded ample open spaces for the formation of vistas and the proper placing of culminating points of interest. But while these points received close and careful attention the individual convenience of different sections of a building remained unconsidered as they were in earlier ages. The perfection with which æsthetic considerations were considered and met in some of the stately and ordered buildings of the Renaissance serves to throw into sharp relief the barbarity and inhumanity of the manner in which human and domestic requirements were met and coped with—a fact that had much to do with the development of the Philistine-like spirit of the nineteenth century. The man in the street seemed almost justified in condemning the architecture of the past as a whole when he began to realise the absence of comfort and convenience which seemed to him inseparable from the architecture of the past.

Architects, themselves, carried away by the tide around them, hardly struggled against it, with the result that the best of them only slightly modified the standards accepted by those whose sole idea was to compass a measure of comfort and convenience. The best of our work until the late 'eighties was badly planned and inconveniently arranged, but the progress made during the last fifty years has been amazing, and it is only by a close study of what has been achieved that we can realise that instead of having cause for pessimism we have good reason for hopefulness, for in no other period of the same short span of time has so much been achieved. We look on the so-called battle of styles and the discussion of architectural niceties as side issues compared with the fact that the public is rapidly recognising that good planning is an essential art and can only be the outcome of training and thought. It is possible that we may be inclined to lay too much emphasis on symmetrical or axial planning, but it has the great recommendation of involving careful and thorough study out of which economy of space and arrangement arise. It certainly leads to the thrashing out of a problem as nothing else does and is frequently a means for arriving at the economical distribution of masses, an economy which would frequently be overlooked were it not for the great care which symmetry in planning renders essential.

The greatest mistake made by planners is probably the application of strictly symmetrical planning to very small buildings, for planning, like chess playing, involves the shifting and arrangement of certain units of design. Where the number of such units is considerable they can usually be arranged symmetrically without loss of convenience, but where they are few this is not often the case, and balance rather than symmetry should be our aim.

Modern planning may be said to be Renaissance planning under a more human aspect, planning which must be compatible with the wants of our everyday life and yet give freedom and opportunity for adequate architectural treatment and expression. But as we cannot examine every detail in a landscape at once the planner must at the outset eliminate a number of details which can be attended to at a later stage. Many architects would arrive at better solutions of planning did they not so rigidly assume that certain conceptions of planning were impossible. If we assume we can do a thing it frequently turns out to be possible, and its inconvenient features prove capable of elimination. Good and imaginative planning will also suggest more possibilities in the way of elevational treatment than a close and meticulous study of detail will, and it is in this direction that we have to look for architectural improvement. The scope for architectural effort has been greatly increased of late years now that it is an axiom that an architect's work does not end with a building but includes its placing and the treatment of its environment, and to make the best of our opportunities we must adopt the widest of outlooks.

Our Illustrations.

PROSPECT OF WESLEY HOSTEL TO BE ERECTED IN JESUS LANE, CAMBRIDGE.
Sir Aston Webb, P.R.A., and Maurice Webb, Architects.

AUSTRALIAN PAVILION, BRITISH EMPIRE EXHIBITION, WEMBLEY PARK. George J. Oakeshott, Architect.

MEMORIAL CALVARY ON THE EAST WALL OF CHANCEL, ST. JAMES'S, CLACTON-ON-SEA.
Messrs. Temple Moore & Moore, Architects. Mr. Alfred Southwick, Sculptor.

This memorial to the men of the Parish of St. James's who fell in the war has recently been executed in Weldon stone. The Calvary fills a blind traceried window that occurs on the east wall of the chancel to this church, which was built about ten years ago, and faces the main road.

Notes and Comments.

The City Churches.

A contemporary suggests that if the City would buy a certain number of the threatened City churches in order that they might be maintained and possibly devoted to other uses, the Church on its side would probably be inclined to make some sacrifice of the full site values.

We hold that both these statements are true, and would be practicable: if the City or any body were willing to prove the sincerity of their convictions by making a monetary sacrifice, the question would, as our contemporary says, be solved. But as far as we know not a single suggestion of the kind has been made. The churches are to be saved by the simple method of preventing their owners from selling, and we are told that if the Church needs money it must find it in ways which are not specified. Sir Banister Fletcher carefully ignores these somewhat important points, but we hope he will write yet another letter to the "Times," and give us his considered views on the subject. We realise that anything touching money is a sordid and distressing subject, but the world is still so imperfect that it yet has weight with many.

Architecture: A Necessity or a Luxury ?

Under the above title, "Indian Engineering" gives a good leading article, in which it discusses the recent paper delivered by Mr. Goodhart-Rendel at the Institute. The writer objects to Mr. Goodhart-Rendel's conclusion that architecture is not a necessity because though engineers can provide the world with buildings they cannot do so as efficiently as architects, and quotes the fact that Mr. Begg, the late consulting architect to the Government of India, was actually able to improve the appearance of works in connection with the Jhelum Canal and at the same time to save Rs.12,000. Further, that the education of the architect is as long and complicated as that of the engineer, and that the smattering of architectural training gained at Cooper's Hill does not fit the engineer to perform an architect's functions with success. With all this we agree, and so would Mr. Goodhart-Rendel, but we think the writer has rather missed the point, which is this: Certain things alone are necessities, certain others could be eliminated, but ought not to be eliminated, while a third class are luxuries alone. The architect falls into the second of these two categories, but looking at things from an inside point of view it may well be useful to remind the average architect—whose view of his own importance may be exaggerated—that his services are not absolutely necessary to the community. The realisation of this fact may to some be a healthy reminder, and we take it this was the meaning which inspired Mr. Goodhart-Rendel's very interesting and well-thought-out paper.

Decontrol.

The new measure dealing with the Rent and Mortgage Restriction Act has some good and some doubtful features. We suppose it was inevitable that the Government should yield to the opposition to decontrol in stages, but we regret that they have done so for the reason that decontrol will prove a great stimulus to building, and control unaccompanied by compensation to owners is a great injustice. Nor do we consider it unreasonable—assuming that control is necessary—to assume that the smaller classes of householders should be protected for a longer period than others. But Labour, confronted with the alternative of supporting something which lessened the burdens of the middle classes or of penalising the owners of property, naturally supported the first alternative. The good features of the new measure are the immediate decontrol of all unlet houses and of new houses, and the decontrol of all houses let on lease for terms which exceed the period of control, and the provisions dealing with the definition of furnished houses and concealed premiums. It will be noticed that, like all Government measures dealing with questions outside their proper scope, the Bill involves the setting up of complicated machinery for determining the disputes which must inevitably occur. Meanwhile we shall all have to wait until June, 1925, for the coming of long-delayed liberty, and incidentally for the resumption of full building activity, which can only arise out of that liberty.

Good Writing.

We have read with interest many of the contributions to our contemporary, "Architecture," some of which lead us to think of the definition which we should apply to good writing. "Architecture" is certainly well and attractively produced, but we cannot help thinking that some of its contributors try to attract attention in the wrong way. The test of good writing, and, it may be added, of good architecture, is that it should leave a definite and distinct impression on our memory, and judged by this standard most of the contributors to "Architecture" fail. Mr. Trystan Edwards appears to us to have said all he has to say at very great length in his book, a book which, while it contains many good things, might be greatly improved by being compressed into a much smaller volume, and by having its exuberances pruned. Meanwhile, he would be better for a rest. We are not greatly impressed by the contributions of Sir Edwin Lutyens, Mr. Louis Christian Mullgardt and Mr. Justice Ferrars on the topic of architecture, none of which leave a clear impression on the retina of the memory. On the other hand, Mr. Baillie Scott, whether we agree or differ from him, produces a distinct and definite impression which reacts by suggesting thought. At the other end of the scale Mr. Geoffry Scott can write of complicated subjects in a manner which all can follow and analyse. In the same manner two buildings as far apart in scope and character as are the poles may each be alike in suggesting a conception easily grasped and remembered, while there are writers and buildings which suggest half-finished mental processes which should not have been published to the world. Clearness, absolute conviction and simplicity should, and do, characterise both good writing and good building.

A French Housing Competition.

The Paris Municipal Council has drawn up the conditions for a competition for the construction of houses at moderate prices in Paris. There will be separate competitions for the districts of the Porte de Ménilmontant, the Porte de Villiers, the Porte de St. Cloud, and the Porte d'Orléans, and in each case prizes are offered of 20,000 fr., 15,000 fr., 10,000 fr., and 5,000 fr. The houses are to contain flats of two, three, four or five rooms, a lift, and, if possible, a service staircase. There is to be central heating and a bathroom for each flat, or in the case of two-room flats a shower bath. The minimum superficial area for a flat of

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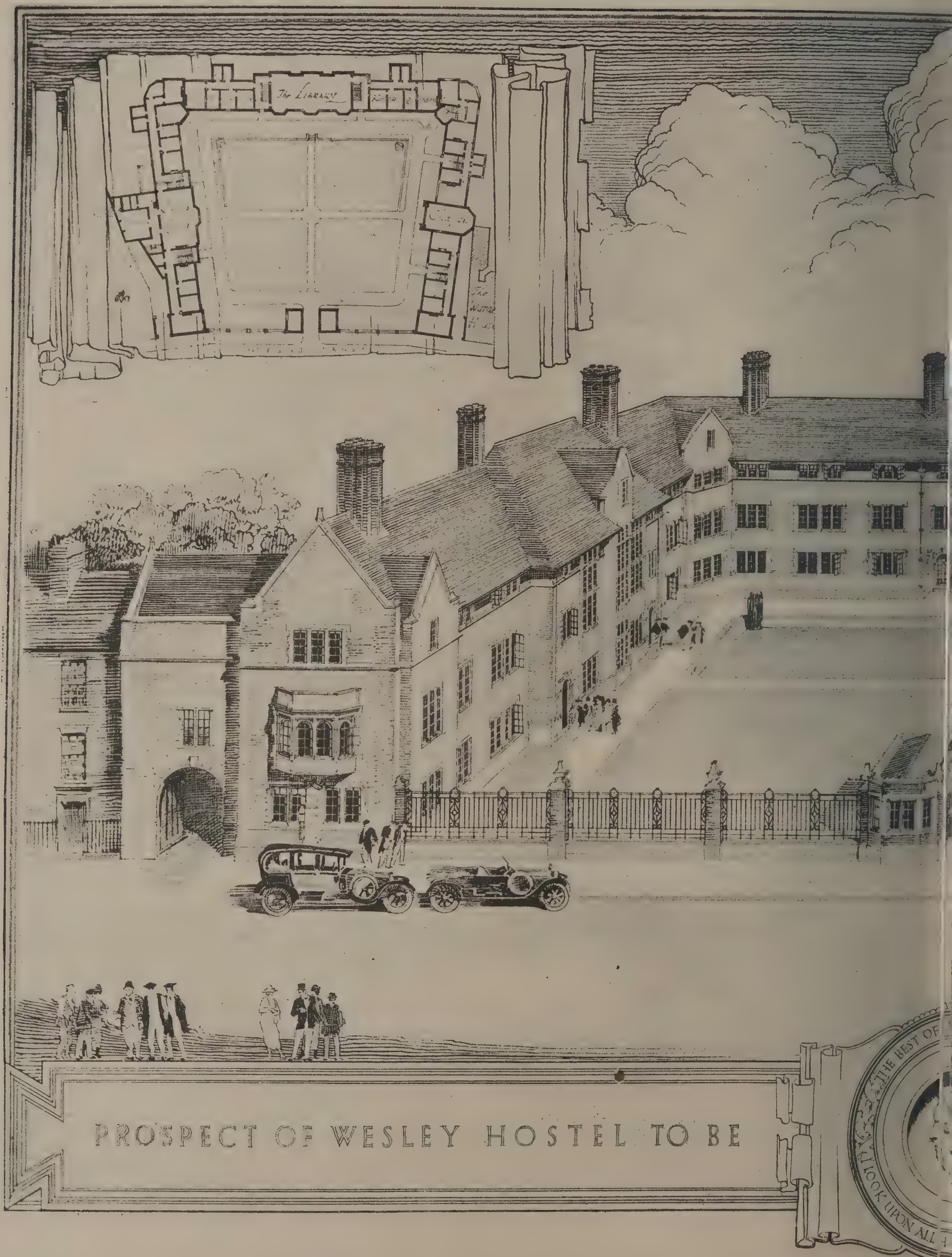
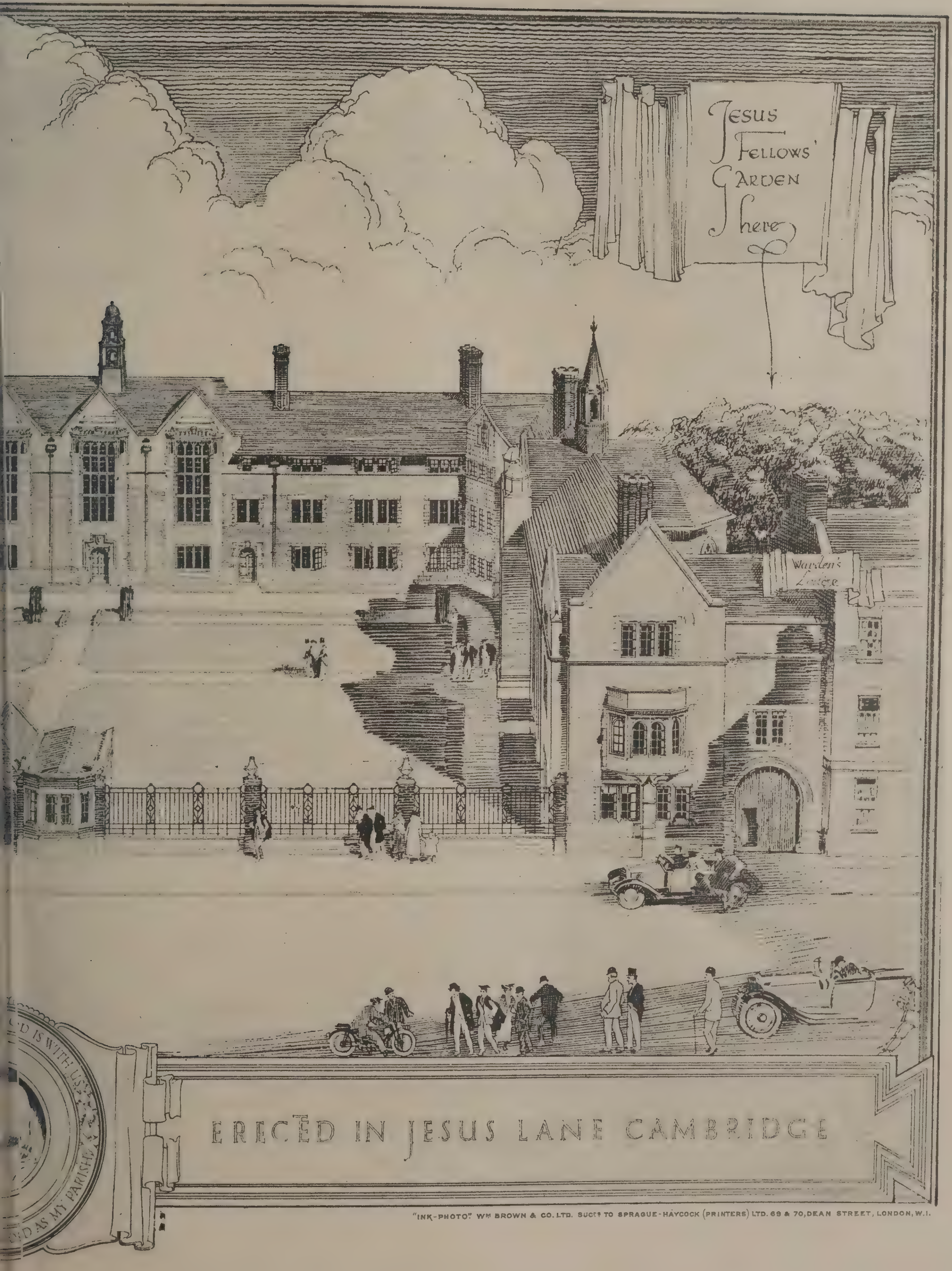


PROSPECT OF WESLEY HOSTEL TO E

SIR ASTON WEBB, P.R.A. A



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URIE WEBB, Architects.

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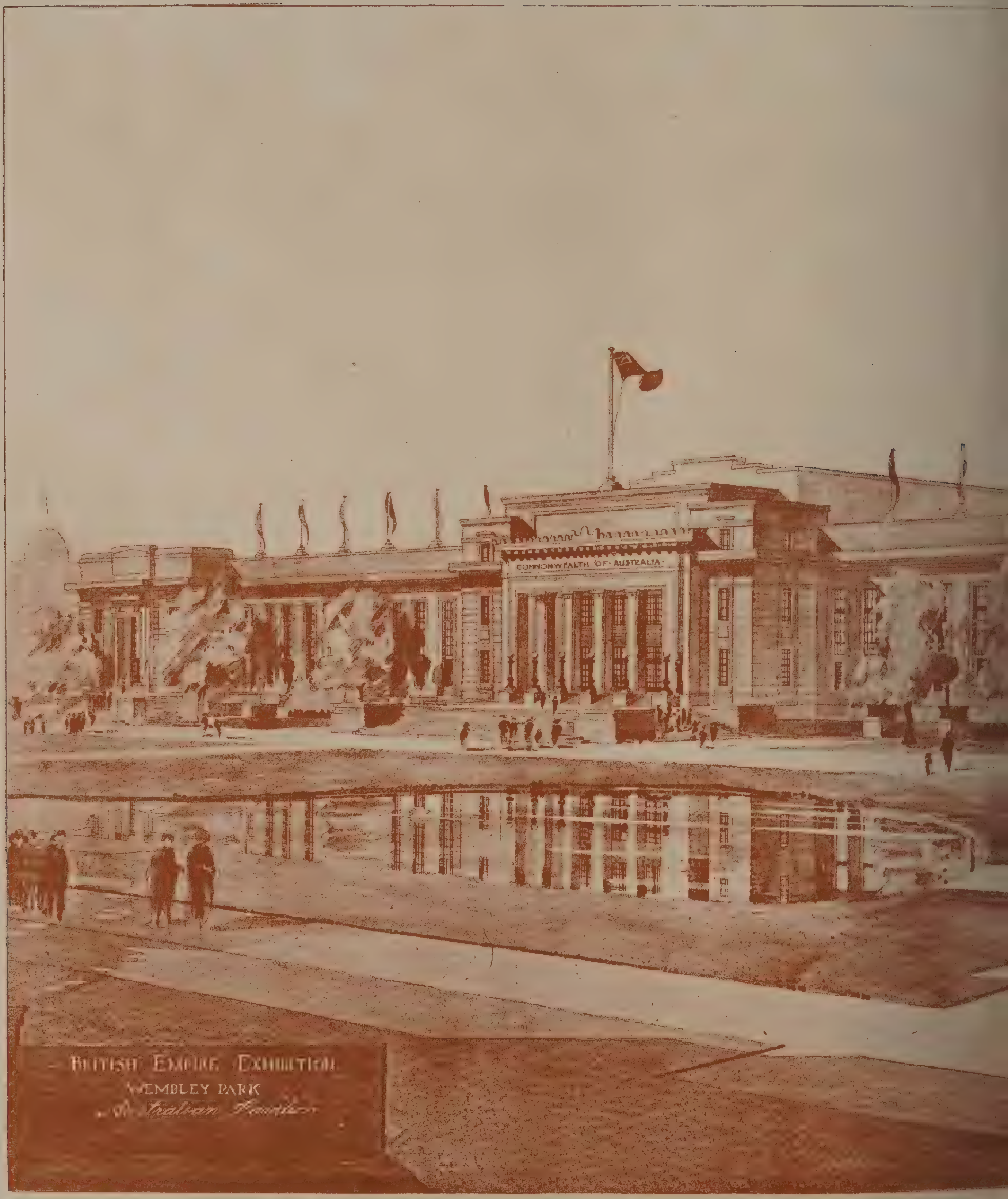
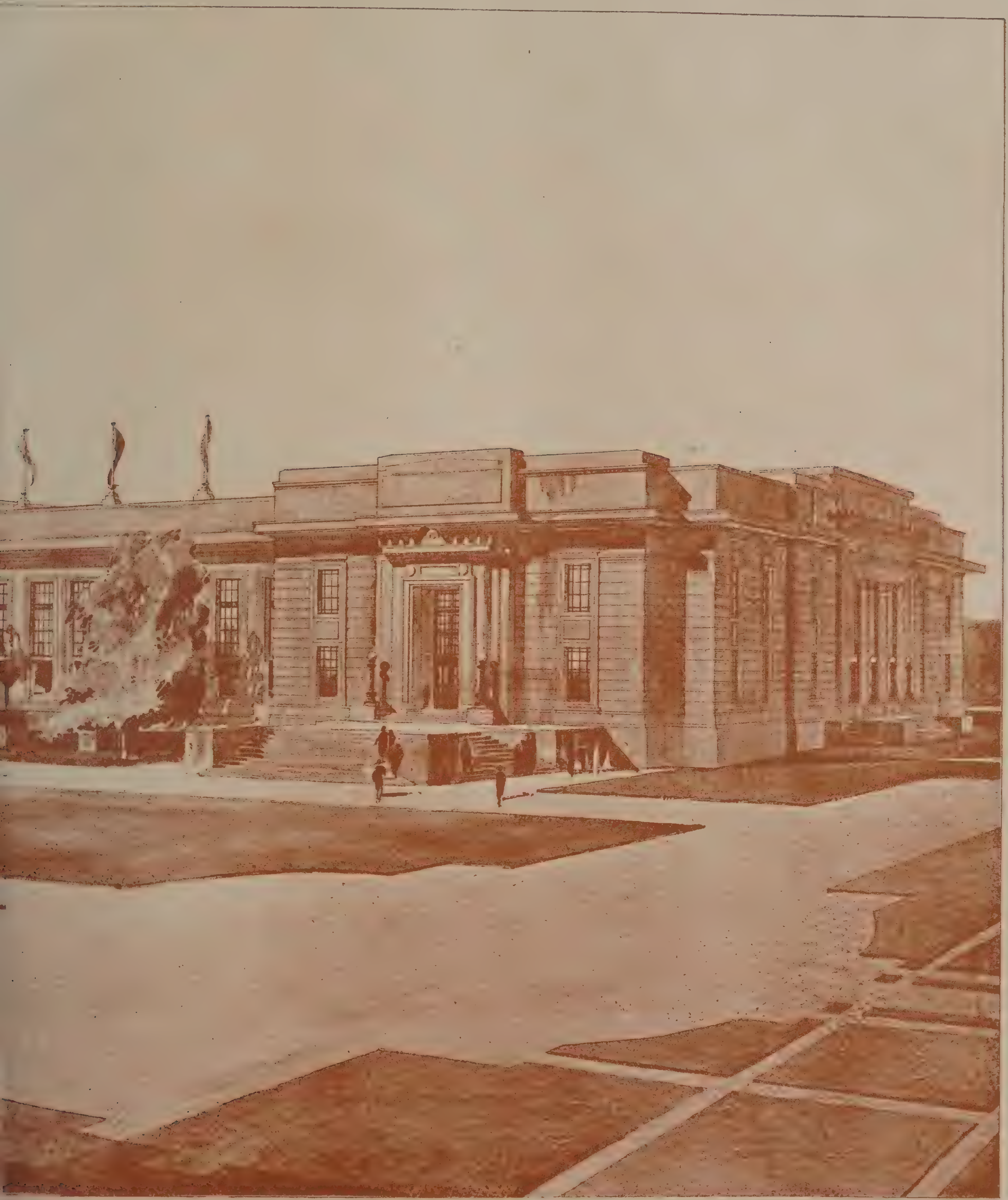


AUSTRALIAN PAVILION, BRITISH

GEORGE J



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EXHIBITION, WEMBLEY PARK.

ARCHITECT.

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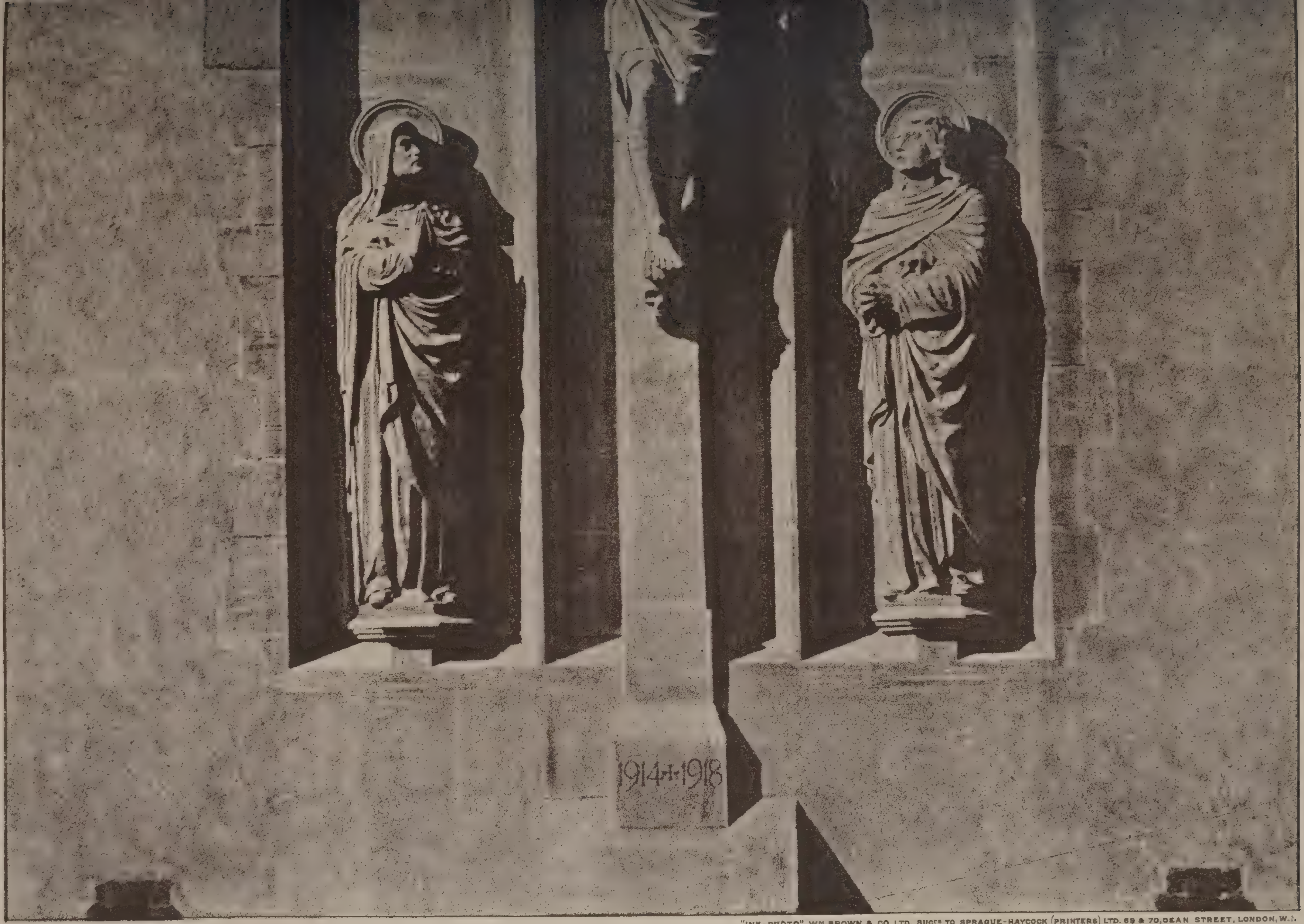

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MEMORIAL CALVARY ON THE EAST WALL OF CHANCEL—ST. JAMES'S, CLACTON-ON-SEA.

MR. ALFRED SOUTHWICK, SCULPTOR. MESSRS. TEMPLE MOORE & MOORE, F.R.I.B.A., ARCHITECTS.

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two rooms is to be 500 square feet, for three rooms 640 square feet, for four rooms 720 square feet, and for five rooms 920 square feet. The rent is not to exceed 1,450 fr. for two rooms, 2,300 fr. for three rooms, 3,200 fr. for four rooms, and 4,100 fr. for five rooms. The above should prove an interesting competition, and it would be a useful exercise if some of the students at the Atelier which has formed itself on French models were to take part in the competition. They would be handicapped by their want of intimate knowledge of French conditions, but in spite of that handicap they might meet with success, especially in these days of publication when there is hardly an architectural subject about which data cannot be obtained.

Architects' Fees for Private Enterprise Work.

The scale of fees agreed to by the R.I.B.A. and by various bodies concerned for schemes carried out by private enterprise, and which are doubtless the best that can be expected, will bring out one fact with great clearness—that such work is only really remunerative to an architect when it is carried out on a really extensive scale, and even then it can never prove a "fat" job if properly and conscientiously carried out.

It may be said without fear of contradiction that even houses of £2,000 or thereabouts carried out for full professional fees entail much work and detail which can only be made to yield a fair return if an architect is a fairly rapid worker and does most of his work himself. And as no one who works for a builder or speculator can be really content unless he gives the full time and trouble necessary to design his work in every detail, it follows that the scale of fees agreed, though it excludes supervision, is a poor one. In addition, no one can be content to see the multiplication of one type of house carried very far, as the groups made by such duplication become wearisome. Still we are glad that this agreement has been arrived at and consider it is in the nature of things the only one which would pay those who have agreed upon it to consent to.

Architects' Fees for Private Enterprise Housing Work.

The following Scale of Architects' Fees for Private Enterprise Housing Work has been prepared by the R.I.B.A. in conjunction with the National Federation of House-Builders, the London House-Builders' Association and the National Federation of Building Trades Employers of Great Britain and Ireland.

This scale is intended to apply to the fees of architects instructed to prepare house plans by builders in cases where the services of the architect are limited to the preparation of drawings only.

The Council of the Royal Institute recommend all Members and Licentiates of the R.I.B.A. to adopt this Scale as a basis for their fees for the work in question. The Scale has been brought to the notice of the members of the National Federation of House-Builders, the London House-Builders' Association, and the National Federation of Building Trades Employers of Great Britain and Ireland.

SECTION A. HOUSE PLANS. HOUSES OF £500 AGREED VALUE AND UNDER.

1. *Detached Houses.*—For preparation of $\frac{1}{8}$ in. scale drawings and providing one copy only to the builder, together with $\frac{1}{2}$ in. details in pencil for one house only (including depositing a set of plans with the local authority in accordance with their by-laws and other legal requirements), the charge shall be four per cent. upon the agreed cost of the house.

2. *Pair of Houses.*—For preparation of drawings as set forth above, the charge for one pair of houses shall be three per cent. upon the agreed cost of such pair of houses.

3. *Repetition Work and Lay-out Plans.*—For preparation of drawings complete as set forth above and including the preparation of Lay-out* plans to a scale not less than $\frac{1}{500}$ for the next 25 houses, the fee shall be £3 3s. 0d. per house.

For the preparation of drawings complete as set forth above and including the preparation of Lay-out* plan to a scale of not less than $\frac{1}{500}$ for the next 50 houses, the fee shall be £2 2s. 0d. per house.

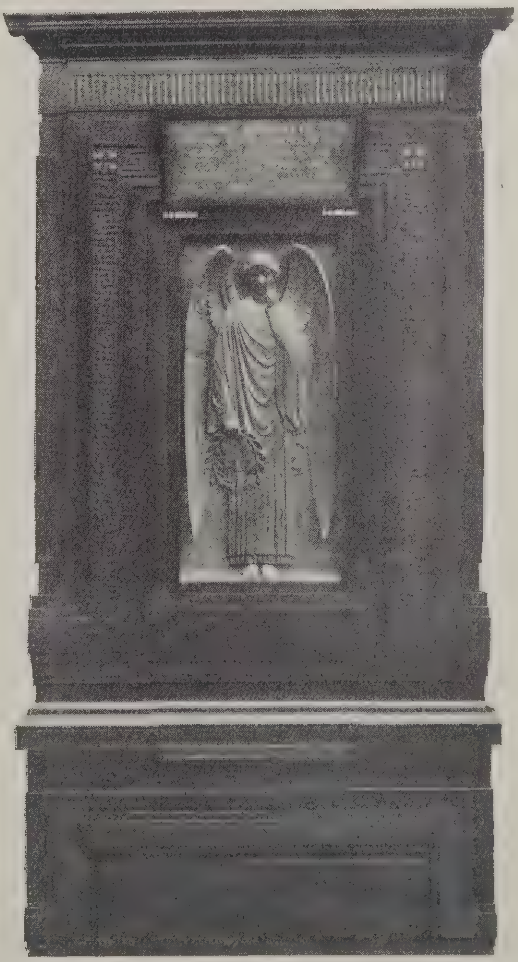
Note.—Examples of the working of the above Section. Number of houses to be built, say, 65.

No. of Houses.	Fees (£500 House).	Fees (£400 House).
One detached house at 4 per cent.	£20 0 0	£16 0 0
Second house at 2 per cent.	10 0 0	8 0 0
Next 25 at £3 3 0 ..	78 15 0	78 15 0
Next 38 at £2 2 0 ..	79 16 0	79 16 0
65	£188 11 0	£182 11 0
Average fee per house ..	£2 18 0·18d.	£2 16 2

N.B.—This schedule shall include the preparation of plans for two types for the first twenty houses and one extra type for every additional twenty houses. In the event of any deviation in plan or elevation over and above the type plans above-mentioned the architect's fees shall be decided by mutual agreement between himself and the builder.

SECTION B. HOUSE PLANS. HOUSES OF AN AGREED COST EXCEEDING £500 BUT NOT EXCEEDING £2,000.

The same scale as that laid down for Section A shall apply, except as regards Clause 1 the charge shall be three per cent. upon the agreed cost of the house, with a minimum fee of £20.



THE WESLEYAN WAR MEMORIAL ERECTED IN JOHN WESLEY'S CHURCH, CITY ROAD, E.C. Designed by J. R. LEATHART, A.R.I.B.A., for Messrs. WILLIAM MORRIS & Co.

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* Lay-out is intended to mean that the builders' roads and sewers have already been formed.

The Architectural Association.

An ordinary general meeting of the A.A. was held on Wednesday, May 30, at 34 Bedford Square, W.C., Mr. Stanley Hamp, President, in the chair.

The following were elected as new members: Mr. Francis Jones, Lieut.-Col. R. ff. Willis, Mr. J. Wardrop Buchanan, Miss Marguerite Doring, Mr. W. M. Smith, and Mr. A. D. Rix.

OFFICERS AND COUNCIL FOR SESSION 1923–24.

The President announced the result of the ballot to be as follows:—

President.—E. Stanley Hall, M.A., F.R.I.B.A.

Vice-Presidents.—Gilbert H. Jenkins, L.R.I.B.A.; H. S. Goodhart-Rendel.

Hon. Treasurer.—L. S. Sullivan, A.R.I.B.A.

Hon. Editor "Architectural Association Journal."—Manning Robertson, A.R.I.B.A.

Hon. Librarian.—J. Alan Slater, M.A., A.R.I.B.A.

Hon. Secretary.—M. T. Waterhouse, A.R.I.B.A.

Past President.—Stanley Hamp, F.R.I.B.A.

Ordinary Members of Council.—W. H. Ansell, A.R.I.B.A.; F. C. Eden, M.A.; C. L. Gill, F.R.I.B.A.; P. D. Hepworth, A.R.I.B.A.; E. J. T. Lutyens, A.R.I.B.A.; A. H. Moberly, F.R.I.B.A.; T. S. Tait, A.R.I.B.A.; M. J. Tapper, A.R.I.B.A.; Philip Tilden; C. Cowles Voysey, A.R.I.B.A.

A vote of thanks was passed to the scrutineers, Messrs. F. J. Adams, M. L. Anderson and W. R. H. Curtis, for their work in connection with the election of officers and Council.

A vote of thanks was also passed to retiring members of Council—Major H. Barnes, Messrs. W. G. Newton and H. I. Merriman.

Mr. Stanley Hamp, before calling upon the lecturer, said he wanted to mention that a new magazine was being started by the students under the name of "Harlequinade." He had no doubt but that the energies which the school possessed would produce a magazine both entertaining and instructive. The President also reminded the audience that the annual A.A. excursion this year will be to Avignon and district, commencing on September 6 and lasting about ten days. Their lecturer, Mr. Marnus, had stepped into the breach when Mr. Carl Brummer was unable, at the last moment, to come to London. Mr. Marnus was himself an old A.A. member.

Mr. M. L. Marnus, who was the speaker of the evening, in introducing his subject, "Danish Architecture," disclaimed the use of the word "lecture." The few hours he had had for preparation had been devoted to collecting the illustrations—of which there were between one and two hundred. These consisted chiefly of general views of towns, palaces, castles, country seats, cathedrals, churches, small houses and landscapes. With very few exceptions, the buildings seen on this lightning tour were of old date.

Starting from Esbjerg, Mr. Marnus recommended that the town should be seen at night, and a moonless one for preference. Esbjerg was less than fifty years old, and contained very little which could be claimed as architecture. A great contrast to this half-bred place was afforded by the beautiful city of Ribe, in which stands Denmark's oldest and, perhaps, prettiest cathedral. Our Lady's Church is a stately Romanesque structure almost in the centre of the town. The earliest church in Ribe had been of wood, and was erected by Ansgar, who brought Christianity to the country. It is assumed that the existing building was commenced in 1125. Fires in 1176 and 1242, as well as restorations in the fifteenth, seventeenth and eighteenth centuries, have resulted in a strange mixture of materials. Ribe itself is full of good old architecture, especially the seventeenth-century half-timber houses.

Graasten is a quiet and pretty little town containing many good houses, of which the mixed Baroque and Renaissance palace, of course, is the dominant. A somewhat similar town is Augustenborg, though its seventeenth-century palace is of far greater importance.

Sonderborg Castle dates from the fifteenth century. It has often served as a royal prison: Christian II was confined in it for over twenty years. This neighbourhood was part of the territory recovered in 1920 from the Germans as a result of negotiations in which Great Britain took a most important share. The castle proved to be in a much-decayed condition. It now accommodates both a poorhouse and a museum.

Crossing to the island of Fyen from Jutland, one can land at Faaborg. Except for the city gates, a clocktower, which is the sole survival of St. Nicolai Church, and some quaint houses, there is not much to be seen at Faaborg itself. But in the vicinity of the town and on the way to Svendborg there are a number of places of interest. Horne Church, which is but a little distance off, is the best-preserved of Denmark's seven round churches. It was originally of granite and in the Romanesque style; subsequently substantial additions were made to it at the east and west ends. Brahetrolleborg Castle is about five miles from Faaborg, and was erected at the beginning of the thirteenth century. It was first a monastery, and in one of the wings is still the magnificent conventual church. Stensgaard is one of the few country seats in Denmark of half-timber; there is an old moat around the place as well as a very beautiful garden. Egeskon is among the most remarkable of the Danish castles. Dating from about 1550, it stands in the middle of a lake on timber piles, and it is said that the whole of a large forest was required to supply the timber for the buildings. Svendborg Museum is a characteristic example of Danish half-timbered work from the seventeenth century. Froense is the most beautiful spot in Denmark when the orchards by which it is surrounded are in blossom.

Broholm is an old castle lying on the main road from Svendborg to Nyborg. Its first mention in history was in 1326. It stands on two islets, which are connected by stone bridges; the moat, which in places is as much as 200 ft. wide, is divided into a number of canals. The principal portion of the castle is of the seventeenth century and constructed of brick. In the garden is a museum of antiquities.

Odense, the birthplace of Hans Andersen, is the third largest town in Denmark, and has a beautiful setting with an idyllic stream running through the centre of the city. The palace was constructed in 1720, but it has not been occupied very much by royalty. The thirteenth-century church of St. Knuds is the most important ecclesiastical structure; there are quite a number of other buildings worth seeing.

The visitor to Sealand would be well advised to follow the coastline round the island, as the scenery is remarkably picturesque and varied; many interesting towns, castles and country seats are passed. At Roeskilde is the Westminster Abbey of Denmark—here more than a hundred royal burials have taken place.

When the King of Denmark is at Copenhagen he resides at Amalienborg Palace, which consists of four pavilions fronting on an octagonal Grand Place from which four main thoroughfares radiate. In the centre of the Place stands a statue group commemorating Frederick V. Rosenberg Castle was built by Christian IV—the brother of Queen Anne. It is now used as a museum, and contains some very rare and costly collections. Christian IV was a very enterprising monarch and a great architect; he put up a large number of buildings in and around Copenhagen. Prinsen's Palace, now the National Museum, was originally built by a merchant about 1680; but Frederick IV bought it and rebuilt it as a home for the Crown Prince, though it never appears to have been much used for that purpose. It served, however, as a temporary residence for his brother-in-law, Peter the Great, when the latter headstrong monarch refused to remain any longer at a palace a mile outside the city walls. Copenhagen's best church, Vor Frue Kirke (Our Lady's) dates from 1200, but after many vicissitudes was rebuilt by C. F. Hansen. Fredericksberg Castle is named after Frederick II, who bought it from a nobleman and had it enlarged considerably. But his son, Christian IV, pulled it down and erected the present structure in Netherlands Renaissance style. It was the scene of a great fire in 1859, when the main building was burned to the ground; the work of rebuilding was carried out by means of national contributions, and was completed in 1895.

St. Clemens Church, Aarhus, is the youngest of Jutland's three cathedrals. It was built about 1200, but is now far more Gothic than Romanesque. Viborg Cathedral is the largest granite church in the country. Started in 1130, and completed in 1169, it has undergone several ungainly changes. But after a general restoration, which lasted from 1864 to 1876, it has been as far as possible brought back to its original state.

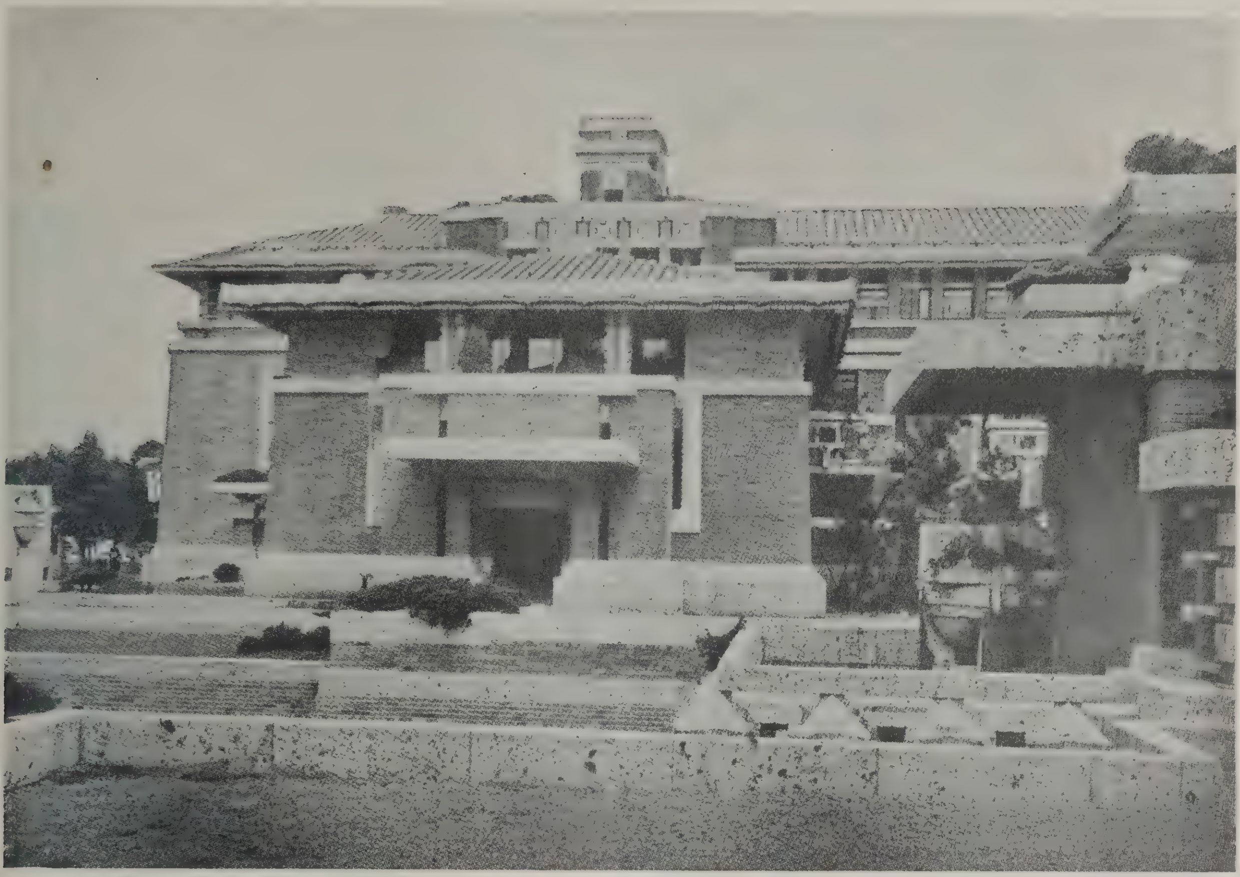
DISCUSSION.

Mr. Stanley Hamp, in proposing a vote of thanks, said he wanted to express their great appreciation and thanks to Mr. Marnus for his talk that night, especially because the lecturer had come at very short notice.

Mr. Philip Tilden having also briefly spoken, the vote of thanks was passed by acclamation and the meeting terminated.

It is proposed to erect a Wesleyan Central Hall and buildings for social work at Southampton. A donation of £10,000 has been promised towards the total cost of £30,000.

The Manchester City Council have adopted a recommendation from their Housing Committee that application be made for sanction to borrow £276,000 for the erection of 690 houses—600 on the Wilbraham Road estate and 90 on the Newton Heath estate.



END PAVILION, IMPERIAL HOTEL, TOKYO, JAPAN. Frank Lloyd Wright, Architect.
From the "Architectural Record" of New York.

Imperial Hotel, Tokyo, Japan.

We give illustrations of a very large hotel recently erected in Japan from designs by Frank Lloyd Wright of Chicago. The views and description are taken from the "Architectural Record" of New York. The plan is laid out on fine lines, the building forming a parallelogram 300 feet wide and 500 feet from front to back. It has been carried out in local materials with buff bricks and greenish yellow lava with copper for the cornices and roof, the flat roof being utilised for gardens.

The general construction of the building is definitely based upon the reinforced-concrete-slab idea, carried out by the architect theoretically and practically to its limits, in a manner so novel, so logical, so convincing, as to be of the highest technical interest to those familiar with the general slab idea. The specific application here has to do directly with a flexible resistance to earthquakes—developing shocks, undulations, oscillations, and twists in action.

The entire structure rests upon a layer of spongy soil, beneath which is found mud of undetermined depth. Short concrete piles are inserted in the upper layer, where required and as numerous as required, capped by reinforced concrete slabs which receive their direct loads at calculated points. The entire structure thus rests upon a flexible foundation which is free to yield to the mutations of earthquake disturbance and come back to place again.

By a system of distribution of steel rods everywhere the masonry superstructure is knitted thoroughly together in such wise as to render it yielding but resilient, hence secure against fracture or distortion. The slabs are as tenaciously yet flexibly adjusted to the vertical supports, and, where occasion requires, the slab system merges from the concept of lintel into that of cantilever. There is here so general a use of this latter method, on account of its adaptability to projecting horizontal slabs otherwise unsupported and the resulting ease of creating unobstructed areas, that it may perhaps be described as in essence a reinforced-cantilever-slab-system.

In the construction of all outer walls wooden forms were dispensed with; the outer layer of specially notched bricks and the inside layer of hollow bricks serving as such. In the cavity between, rods, vertical and horizontal, were placed, and then the concrete filler, the wall thus becoming a solid mass of varied materials, into which the floor slabs are so solidly tied as to take on the character of cantilevers, as conditions of disturbance might demand.

Thus we have a structure almost literally *hand made*—the use of machinery having proved relatively inefficient—a structure so solidly built of materials inseparably united as to possess all the virtues of a monolith, and yet so completely threaded through with steel fibres as to add the virtues of elasticity and resilience.

The policy of administration of actual construction work was based upon the traditional habits of the Japanese skilled labourer and craftsman. These active and tireless little men are so deft and nimble that results were most thorough, even though at first they required instruction in the use of materials with which they were not familiar.

This structure, designed theoretically and worked out practically to withstand distortion or fracture by earthquake, was put to the test while nearing completion in April, 1922, in broad daylight, during the heaviest tembler in point of severity Japan has known in fifty years. Wide destruction was wrought in the city of Tokyo. The shock was terrific. The Imperial was violently jolted. It visibly trembled, swayed and rocked in the upheaval, and at its ending quietly steadied to position, free of distortion, rents or damage of any kind.

So much for a system of construction altogether novel in conception and execution, carried out by a strong, persistent mind, as imaginative in its insight into fundamental principles of engineering as in its profound insight into the romance of breathing life and beauty, humanity and spirit, into forms and materials otherwise helplessly inert.

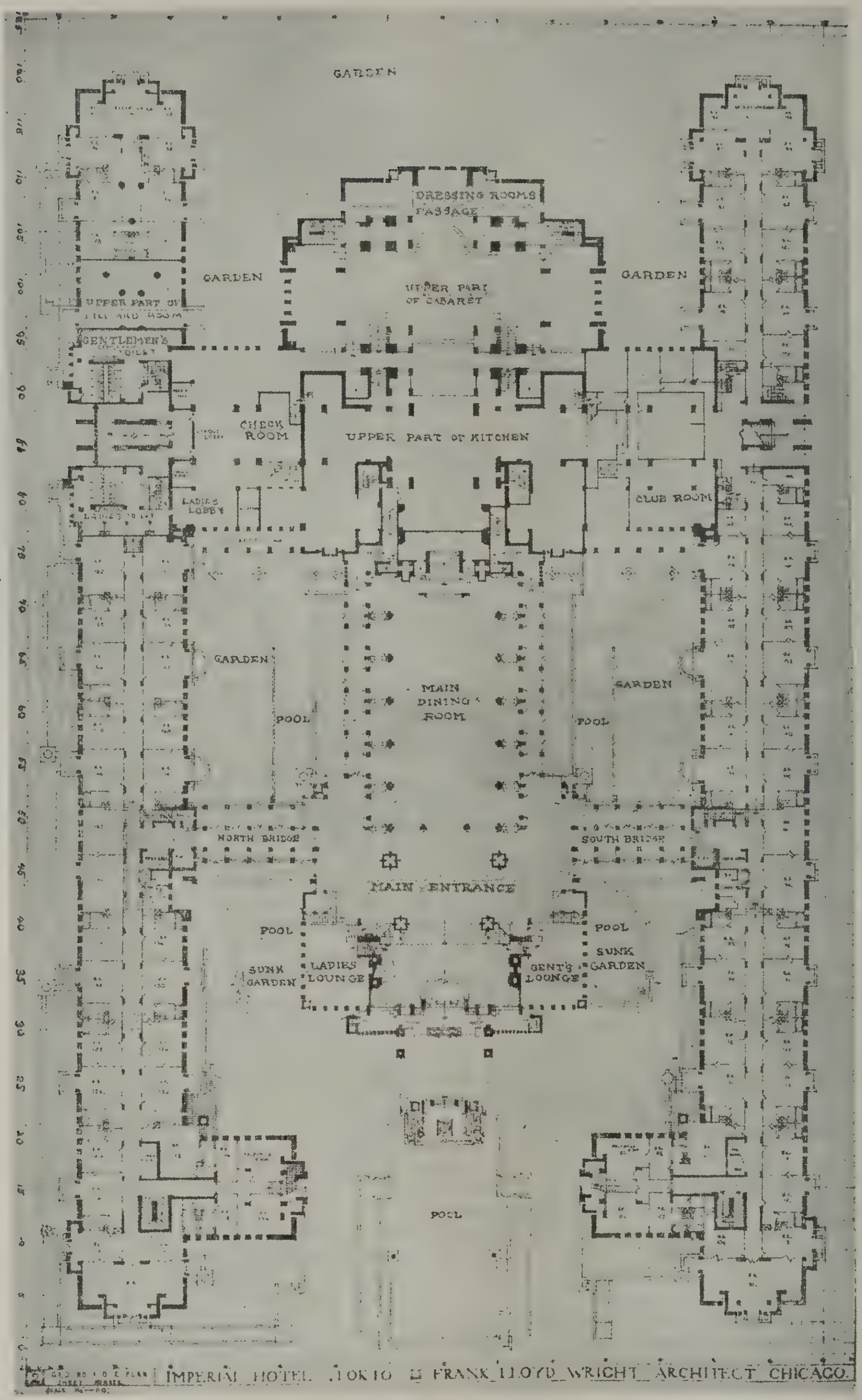
It is thus that the master mind works, to bring forth, out of the fabric of a dream, a fabric of enduring reality.

As to the interior, a noteworthy feature is the use of lava and brick in the grand promenade, the theatre, the restaurant and the banquet hall. It was a happy thought to penetrate the interior with materials of the exterior, thus giving a sense of enduring construction.

The equipment is thorough and complete; electric heating, light and motive power, the usual telephone service, and a system of mechanical ventilation constantly in use and so arranged as to deliver cooler air in summer.

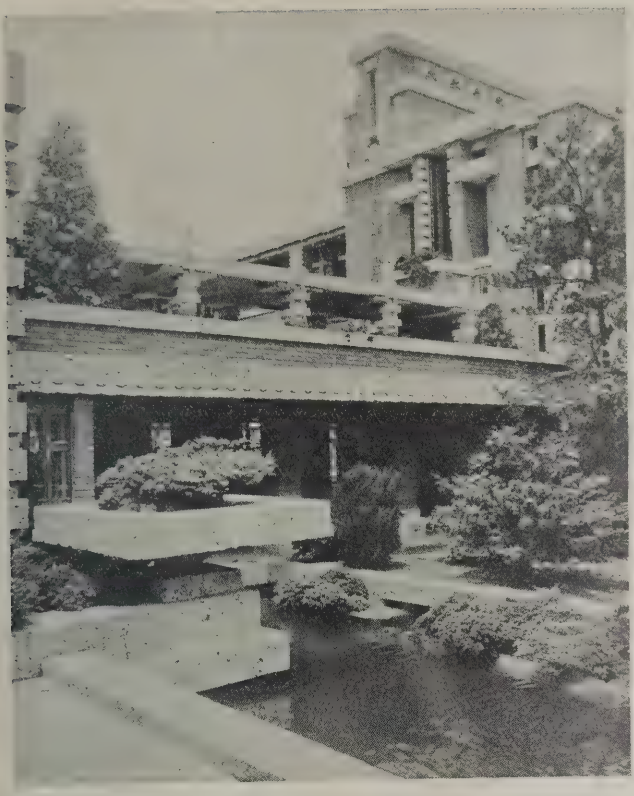
All furniture, rugs and hangings of the public rooms are of special design, simple, strong and rich, partaking of the character and specifically related to the forms of the structure in a fine play of polychrome.

The guest room arrangement of the wings has been worked out to conserve space, concentrate conveniences and preserve



a quiet effect. The rooms are not large, but are arranged and furnished to become sitting rooms; the beds are in evidence more as couches than as beds. The typical small room is 15 by 18, with a 6 by 10 bathroom deducted. The typical large room is 15 by 22, bathroom similarly deducted. Average ceiling height 9 feet 4 inches. The electric heating and indirect lighting are combined in a standard attached to twin tables in the centre of each room. These tables have a small writing table and a small tea table beneath them which may be removed to any part of the room, and, when not in use, may be returned to their places as part of the central group. The electric heat is thus at the centre of the room. The wardrobe is a built-in feature of each bedroom, and is designed to accommodate a steamer trunk, a wardrobe trunk and two suit cases. It has ample hanging space for clothes, and the drawers of the old-fashioned dresser have been worked into this feature. There is storage space above it for purchases. A feature of this wardrobe is a guest-box accessible from the corridor or the bedroom at the will of the guest. This guest-box also contains the telephone. A full-length mirror is placed against the side wall, and a small dressing table placed beside it. The central group of tables and this dressing table, together with an overstuffed easy chair or two, a light, wooden chair or two, and a hassock, are all the furniture of the room, except the couch-beds. It will be seen in this arrangement that great simplicity has been arrived at. An individual colour scheme characterises each room. A specially-designed rug to correspond is upon the floor. The furniture covering, bed covers and window hangings are of the same stuff and colour, and correspond in each case with the colour note of the room. The colour scheme ranges through the whole gamut of colour from quiet greys to bright rose and old blue or gold. The effect of the whole is quiet and complete. Everywhere there is ample light. Privacy is insured by the omission of the transom and the device of the guest-box. Cross-ventilation is secured in every room and bathroom by means of forced draught acting through ducts and a series of square ventilators set in the corridor partition above the picture rail. These are easily adjusted for summer or winter use. The corridor ceilings are all dropped beneath the concrete slabs to make continuous ducts, to which are connected the vertical vent shafts between every pair of rooms. These vertical shafts extend from basement to attic space and contain pipes and wiring, which are accessible and free of the construction everywhere.

The bathroom is an adjunct of the bedroom; in every case treated as a part of it. It is lined with ivory coloured mosaic tiles, all external and internal corners curved. The bathtub



GARDEN POOL, NORTH BRIDGE AND ELEVATOR HOUSINGS. IMPERIAL HOTEL, TOKYO, JAPAN.
FRANK LLOYD WRIGHT, Architect.
From the "Architectural Record" of New York.

is a sunken pool in the floor of the room, formed, with curved corners, of the same mosaic tile as the floor and walls. The room has a vaulted ceiling, and screened windows in the outer wall. The whole is drained and impervious to water in every part. The floor is electrically heated from below.

The main corridors of the guest wings are 6 feet wide, exposing the brick-faced concrete piers that support the floor, giving to the whole the effect of a cloistered promenade. The corridors are artificially lighted through perforated metal screens set into the ceiling. The corridor floors are cork-tiled. The threshold has everywhere been eliminated. Where plaster has been used the walls are treated with ground pearl shell splashed on to a heavy coat of paint in the Japanese manner. All the windows of the building are screened, shaded and curtained.

This immense building is an interesting example of the skill with which a suggestion of the East has been incorporated in a building which is generally American in its scope and character.

Architect's Claim for Fees.

In the King's Bench Division, on the 30th ult., Mr. Justice Rowlatt heard an action brought by Mr. William May Weir, F.R.I.B.A., of Hillfield Road, West Hampstead, against Messrs. H. F. & R. A. Brasted, piano manufacturers, of Hermitage Road, Harringay, claiming £142 fees for work done as architect and surveyor for the defendants.

Mr. Kyffin, for the plaintiff, said that prior to November, 1921, his client was engaged in the erection of a factory at Tottenham for a company which failed before the work was completed. In November he learned that the defendants had purchased the site and contemplated further work there. He was called in by the defendants, and at their request prepared a number of plans and specifications and was paid. Some dispute, however, had arisen over three or four items for which the plaintiff said he was entitled to be paid for work he had done. These included the laying of some flooring and plans in connection with a heating chamber and a timber shed.

Mr. Giveen, for the defence, argued that his clients were not liable in the circumstances for anything more.

His Lordship, after hearing evidence, said he was against the plaintiff on his claim in respect of the flooring and the timber shed, and also on the first claim made for the heating chamber. He thought, however, with regard to the last-named that when the first plan prepared was not accepted the plaintiff was told to prepare another, and he did so. The defendants did not like the expense of it, and changed their idea and abandoned it, and had a makeshift of a different kind altogether. He thought, however, the plaintiff had been employed to do the work, and he was entitled to £28 in respect of it. There having been £6 6s. paid into court, the plaintiff would have judgment for £34 6s., with costs.

"The Architect" Fifty Years Ago.

JUNE 7, 1873.

THE ROYAL ACADEMY.

Mr. Edward M. Barry has now been appointed to succeed Sir G. Gilbert Scott in the most honourable office of Professor of Architecture of the Royal Academy. How this appointment is to be understood it is not easy at once to say; but those who cling to the hope that architecture, whether as an art of elevated study or as a profession of high public standing, is to be aided and advanced in these days by its association with the Royal Academy, can scarcely help feeling that the election of a new architectural Professor, in the person of an academician who, although of several years' standing, and with a wide experience of architectural practice, has not yet ceased to be considered a young man, and whose voice as a critic has never been heard, is an event of no little importance.

It can scarcely be much more than twenty years since the accomplished Professor Cockerell was delivering the best of those well-studied and learned lectures which even those who were not listeners were accustomed to regard as an event in the year; and although the practice of architectural disquisition has since that time become vastly extended, it certainly cannot be said that the Academy lectures have advanced with the times. For some years Mr. Sidney Smirke faithfully if not brilliantly performed the appointed task. Since then the title of Professor has belonged to Sir Gilbert Scott; and, although he cannot be accused of having neglected the duties of the office, and must, on the contrary, be acknowledged to have for the last year or two devoted himself with no little ardour to the development of one or two special chapters in the high science of the art, yet when in the very prime of his strength he quits the chair, as we may say, fatigued, at the very time when the profession and the artistic world seemed to be more entitled than before to expect from him the continuance of his labours on the most elevated ground—that assumed by Cockerell—the systematic exposition of the experience of an acknowledged master, there is something in such a circumstance not readily understood. And we may take leave to repeat that when his mantle is now made to fall upon a gentleman who, so far as we know, has never yet delivered himself of a single word of public teaching, either spoken or written, it is scarcely to be wondered at if misgivings should here and there be entertained as to whether the entire scope of the R.A. professorship is not mistaken.

Competition News.

Members of the Society of Architects are notified that the conditions of the Yeovil Burial Ground Competition are not in accordance with the regulations, and they are requested not to take part in the competition without first ascertaining from the Secretary that the conditions have been approved by the Council.

The R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Leigh-on-Sea Baptist Church Competition are not in accordance with the regulations of the R.I.B.A. The committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition. A similar warning has been issued by the Society of Architects.

Competitive plans are invited for a school to be erected in Twickenham seating five to six hundred children and having a frontage of 40 feet. The closing date is June 14. Application should be made to Mr. Howard, Claremont Road, Twickenham.

The Secretary of the Royal Institute of British Architects has just received the news of the death on May 19, at the age of 73, of Mr. Frank Darling of Toronto. Mr. Darling was the most distinguished Canadian architect of his time, and was responsible for many of the most important public and commercial buildings in Canada, including the new Parliament Building at Ottawa, the Toronto General Hospital, the Canadian Pacific offices at Toronto, and many of the Toronto University buildings. In the year 1915 Mr. Darling received from the Royal Institute of British Architects the Royal Gold Medal for the promotion of Architecture. He was the only Dominion architect that ever received this honour.

Society for the Protection of Ancient Buildings.

Lord Curzon of Kedleston presided at the annual meeting of the Society for the Protection of Ancient Buildings, at the Royal Institute of British Architects, Conduit Street, W., on Thursday, May 31.

Lord Curzon observed at the outset that to him the preservation of the ancient buildings of a country had always been in the nature of a second religion. Each man or woman had their own particular hobby. Some people had a harmless taste for collecting stamps, to him a quite incredible form of amusement. Only the other day, on the death of an eminent man, there was sold the collection he had amassed of relics and instruments of the principal crimes and murders of the last half century. He was glad to say that the things went for almost nothing. His own taste had always run in the direction of regard for the ancient monuments of the past—a regard which was, perhaps, born in him, because he happened to have resided in and to be the heir to one of the great houses of England, itself a masterpiece of the Adam style which if not already an ancient monument was in course of becoming so. Secondly, in the course of his travels, he found that in the countries he visited—particularly the Eastern countries—there were only two things of real interest—the people and the ancient buildings. And the ancient buildings illustrated the history and the character, and explained the mentality of the people themselves. He had always felt that in England we had our own collection of ancient buildings, not inferior to any, and, indeed, in some respects superior to all. In the first place, this country, being an island, had been less exposed to invasion than any Continental land, and since the days of the Wars of the Roses, and the Civil War, there had been no civil commotions which had resulted in the destruction or multilation of monuments. Secondly, with us country life and country institutions had always been developed to an extraordinary pitch. Thirdly we had always had a number of people of wealth and taste who had devoted their means to beautifying their homes.

Therefore if one looked at our country one would find in our cathedrals, and equally in our churches—for the village church was the ancient monument of each parish—in our castles, which had been treated with undeserved contempt, our manor houses—the great Tudor and Jacobean mansions of the days when wealth and taste began to prevail—in the great Palladian mansions of the eighteenth century, in our public buildings and almshouses, and even in the cottages of the poor—not the least remarkable among our ancient monuments—in all these one saw a collection of treasures unique in the whole world. What ought to be the interest of these buildings to persons of every class? They were part of the history of the country. Each one of the buildings was a document in brick or timber or stone, and in them one might read the successive changes in the styles and fashions, the taste, the dignity, and the wealth of successive generations as they had come and gone. "If I go down in a motor to the country," added Lord Curzon, "I find a large collection of motors outside the village public-house. I go straight to the church. That is where the motors ought to be, because in the walls of the church, with its varying styles of architecture, with its monuments representing the history and traditions of each successive age, with its woodwork, its rood screens, its long tell-tale history running through the ages—there you will find the history of the place. There you find all that is valuable and interesting and romantic in the past. If you go to Rome, you go to the Forum before you go to St. Peter's. If you go to Athens, as your first task you climb the Acropolis to see the Parthenon. Why don't you do the same thing in your own country?"

But, quite apart from historical value, there was in these old buildings a beauty, a picturesqueness, and a romance which might be partly the result of the wear and tear of time, but which was quite as often the result of the untutored, almost untaught, skill of the builders and architects of olden days.

Lastly, these buildings were part and parcel of the spiritual heritage of the nation. They took us away from the sordid, the squalid, and the material in our fleeting everyday lives, and inspired us with the spirit of reverence; they taught us that we had a great past; they made us proud of our country; they infused a spirit of peacefulness and reverence in everybody who visited them.

The treatment of these priceless treasures had gone through various phrases during the last century or more. First there was a complete, callous and ignorant indifference displayed quite as often by the owners themselves as by anybody else. The Circle at Avebury, near Marlborough, once far more remarkable than Stonehenge, had had its stones knocked down, cut about, and used for cottages, and even paving. He knew of a magnificent mansion, one of the triumphs of British architecture, which had been allowed to fall into irretrievable ruin because its owner swept off the leaden roof in order to sell it in the market. From many of these old buildings stones had been carted to provide material for cottages, and perhaps this applied more particularly to our castles. Yet we possessed as fine a collection of mediæval castles as any country in the world.

Then came the period of hasty, ignorant, and disastrous restoration, when people began to think that these places were worth preserving, but had not the slightest idea how to do it. One might paraphrase the famous saying of Madame Roland, and say, "Oh restoration, what crimes have been committed in thy name!" At the beginning of the last century there was a terrible family, named Wyatt, most prolific, absolutely destructive, of immense power, and relying upon wide patronage. They took almost every great palace in the country from top to bottom, Gothicised and spoiled it. They had left a name which ought to be covered with eternal execration.

Lastly came the period, for which the society was largely responsible, of intelligent, reverent and scientific repair. But still, there is immense need for vigilance. "The Philistines are not extinct in this country," said his lordship. "On the contrary they abound. There are not merely vandals who destroy, but vandals who build up and repair, and when these people collect they rage furiously together and imagine many vain things. Sometimes they want to pull down a church—it may even be a Wren church—because there are not enough worshippers to fill it. In my view, the fabric of the sacred building is as much an offering to the Almighty as are the worshippers collected in it. You might as well begin to pull down Versailles because France has chosen to dispense with kings. Sometimes they destroy a building in order to widen a roadway or to provide facilities for a rush of motor-cars. Sometimes they destroy them simply because they are inconvenient, old-fashioned and out of date. There is a terrible modern ideal, which is called 'city improvements,' which has been responsible for more horrors and more crimes than even the professional criminal class itself." This society was the watchdog to prevent the repetition of these atrocities in the future.

He had spoken of the reverence for ancient buildings, continued Lord Curzon, as an admirable sentiment, almost as a religious cult. But there was one form of this cult which seemed to him to be antiquarianism run mad. He spoke of the modern craze for taking up the remains of the dead. If a famous man or a famous woman was supposed to be buried here or there, it seemed to be the fashionable thing from time to time to turn them out to see if they were really lying below. Poor Charles I. was taken out of his coffin in order to see if his head was really off. And in the same way most of our kings and monarchs had at one time or another been disturbed or disinterred. There might be an excuse for transferring the body of the Emperor Napoleon from St. Helena to the great, stately tomb of the Invalides, although he did not think there was any excuse for opening the coffin to see if the Emperor was inside. In the same way there might be an excuse for exposing the sepulchre of King Tutankhamen, because of the enormous addition to the artistic and historical records of the times in which he lived. But he had read that day of an incident for which he found no similar excuse. Three hundred years ago there was an Indian girl, Pocahontas—she was now called a princess, which, he was sure, would greatly have astonished her. She married an Englishman, came to this country, died, and was buried or believed to have been buried at Gravesend. "Now," said Lord Curzon, "they are digging her out. I read of a lot of ghouls gathered round the site where they are finding a heap of skulls and bones, and men of science actually sitting to discover whether, amid this pile of débris, they can find a skull with some black hair on it. In our reviving passion for antiquity, let us at least spare the dead. They are not ancient monuments. They do not require to be touched up from time to time."

Mr. J. C. Squire then read an address, of which a report is given on page 399, which was entitled "Ancient Buildings in Literature."

Professor William Rothenstein proposed a vote of thanks to Mr. Squire and Mr. Thackeray Turner to Lord Curzon.

In response to a letter from the Housing Committee of Easington Rural Council, who wrote to the private builders and colliery owners asking how many houses they would undertake to build during the next two and a half years if the District Council could secure the subsidy, the following replies have been received:—Londonderry Collieries, Ltd., 45 houses; South Hetton Coal Company, 134 at South Hetton, and possibly 100 at Minton; Easington Coal Company, 180; private builders, 75; and Wingate and Deaf Hill Public Utility Society (suggested), 150.

Ancient Buildings in Literature.*

It was scarcely to be supposed that in any civilisation of the past where men of imagination have been in the habit of putting their thoughts on paper they have not occasionally experienced sensations in the presence of the monuments of the past and recorded those sensations. Doubtless it was so in ancient Egypt, in ancient Babylon, and probably so in ancient Rome and Greece. A rather desultory glance over the records of Greek and Latin literature, however, discovered no more than one or two slight references to the subject of ancient buildings. But the only actual sentence which seems to indicate the presence of something like the sentiment that we ourselves cherish on the subject occurs in one of the Georgics of Virgil, where there is a sentence referring to "rivers gliding under ancient walls"—very few words, but, nevertheless, extremely Tennysonian, indicative of a quite modern attitude towards the effect that ancient buildings produce in a landscape.

In English literature before the Reformation references to ancient buildings are very few. There does not seem to be anything exactly to the point earlier than Chaucer, who has two or three lines in which he discloses a slight tendency to brood over ancient buildings in the manner which later became so familiar in our literature. In the "Clerk's Tale" there is a reference to

"A lusty plain, abundant of vitaille,
Where many a tower and form thou mayst behold
That founded were in time of fadres olde,
And many another delitable sight."

From these sentences in Chaucer one can deduce a certain regard for old buildings, but his old buildings seem to be invariably set either abroad or in an imaginary country. It is far more characteristic of the Middle Ages to express pride in the new than to say anything about the older buildings.

The typical reference to buildings in the Middle Ages is to be found in the poem addressed to the City of London by Dunbar, who was born in 1465. That magnificent apostrophe, "London, thou art the flower of cities all," is distinctly addressed to living architecture:

"Strong be thy wallis that about thee standis;
Wise be the people that within thee dwellis,
Fresh is thy river with his lusty strandis,
Blithe be thy churches, well-sounding be thy bellis."

There is no brooding over the past there.

We find the first outburst of references to ancient buildings after the Renaissance. The Renaissance in Italy was accompanied by a great deal of excavation and led to a great deal of quite new attention to the ruins of an older civilisation. The sentiments which that contemplation engendered in Italy spread to France, and from France to England. It is very prevalent in the works of the poet Spenser, a man prone to such feelings, being very meditative and slightly melancholy. There is a poem by him of the name "The Ruines of Time," an elegy dedicated to the Countess of Pembroke on the death of her brother Sidney. The lesson of it is "Sic Transit." It begins:

"It chaunced me on day beside the shore
Of silver streaming Thamesis to bee.
Nigh where the goodly Verlame stood of yore,
Of which there now remaines no memoire,
Nor aine little moniment to see,
By which the travailer, that fares that way
This once was she' may warned be to say."

It was a curious thing that in Shakespeare we do not find very many references, or at any rate very explicit references, to ancient buildings. Shakespeare uses them freely, profusely, as backgrounds. If we go to a Shakespearean tragedy the chances are that in half the scenes the background will be portions of buildings of almost immemorial antiquity, that we shall see embattlements and dungeons and vaults galore. But he very seldom refers to them. One allusion is the well-known line from the Sonnets which Shakespeare applies to winter trees: "Bare ruined choirs where late the sweet birds sang." It appears to be agreed that this is an allusion to the beautiful abbeys, the glories of England and Christendom, which had been destroyed almost within Shakespeare's lifetime. Sentences referring to those destroyed abbeys, which, of course, had not gone so far into decay in his time as they have now, are to be found in the pages of the antiquaries who began with Compton to be fairly numerous in England in the seventeenth century, and occasionally also in the pages of the poets. There is a very sentimental allusion to it in Bishop Corbet's well-known poem which begins "Farewell rewards and fairies"; but those allusions are not very numerous in pure literature.

One would have expected that had such a feeling been very general there would have been a great outburst of it after the Great Fire of London: but we do not find such an outburst of regret over the loss. Pepys, a very characteristic citizen in his interest and outlook, says that he is glad Hollar has made a print of London, "a pretty representation of that part which is burnt"; but beyond that all that he is really concerned with is the damage that the fire has done, and in particular the financial loss that people suffered owing to its ravages. Evelyn gives some indication of an appreciation of the architectural loss: "Thus lay in ashes that most venerable church (St. Paul's), one of the most antient pieces of early piety in the Christian world, besides neere 100 more. The lead, yron worke, bells, plate, etc., the exquisitely wrought Mercers Chapell, the sumptuous Exchange the august fabriq of Christ Church, all the rest of the Companies Halls, splendid buildings, arches, enteries, all in dust; the fountaines dried up and ruin'd, whilst the very waters remain'd boiling." Yet three days before making that entry John Evelyn and a party of fellow-conspirators had been going over St. Paul's with yard measure with the object of placing upon the Gothic St. Paul's a cupola or dome of which the merit was that there was not another like it in England. In other words, the classic invasion had become so strong that even men with a veneration for ancient buildings were not content to leave them as they were. By another thirty or forty years that taste had become so general that one looks almost in vain for any expressions in literature of reverence for ancient buildings.

Horace Walpole, who was one of the pioneers of an interest in Gothic, had to express in the early part of his life his passion in this phraseology: "In the heretical corner of my heart I adore the Gothic building." Simultaneously with Walpole's "Castle of Otranto" and Mrs. Radcliffe's famous "Mysteries of Udolpho" there arose in our poetry a similar tendency to get back to the past which had been so underrated in the time of William III. and Queen Anne and of George I. From that rather premature burst of the romantic one may trace a perpetually growing interest, expressed in poetry and in novel, in ancient buildings. At the real period of the Romantic Revival no poet failed to mention them pretty frequently. It was an age in which the reaction in favour of ancient things was so strong that dirt, cobwebs and ruins were the things that people liked most, and people actually erected artificial ruins. But it came to be laughed out of its passion. "Northanger Abbey" is to some extent a satire on it, as also the Ingoldsby Legends. In the literature of the last half-century, although ancient buildings are more conspicuous than in any previous age, there is not quite so general or unwholesome a doting over the building that has fallen into decay rather than over the building which has been kept in good condition. In Trollope, above all, can be found understanding descriptions of ancient buildings: ancient buildings in good order, not damp and decayed, ancient buildings still in use. He, perhaps with Dickens, of all the nineteenth-century novelists, was most intelligently interested in ancient buildings. "Edwin Drood" and "Barchester Towers" are the two great books in English literature which are dominated by cathedrals.

Of our contemporaries, Mr. Bridges, who wrote one poem about a church which was

"Unwreckt
And still from modern style
Sheltered by kind neglect,"

which all must approve, and Mr. Thomas Hardy have written pretty freely on ancient buildings.

The Glasgow School of Art and the Glasgow School of Architecture are to participate alternately in a scholarship to be provided out of a gift of £3,000 by Mr. John Keppie, A.R.S.A., F.R.I.B.A., the well-known Glasgow architect. The purpose of the foundation is to provide a travelling scholarship of £100, which is to be awarded in alternate years to the most distinguished student of the School of Art and of the School of Architecture in sculpture and architecture respectively. The scholarship is not to be competed for by special examination or be awarded for any special design, but is to be for the encouragement respectively of students in architecture and in sculpture. It will be given to the student who, in the opinion of the adjudicators, is the best of the year. The winner of the scholarship will be obliged to use it for the study of architecture or sculpture, as the case may be, either in Great Britain or on the Continent, or elsewhere, as approved by the adjudicators, who will also fix the period of study. Mr. Keppie is a former student of the School of Art, and was for some time a member of the governing body.

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* Abstract of an address by Mr. J. C. Squire, delivered at the annual meeting of the Society for the Protection of Ancient Buildings. The address will be published in full, together with their annual report, by the Society.

Correspondence.

The R.I.B.A. Election.

To the Editor of The Architect.

Sir,—Most architects will agree with me that whilst registration may possibly be advisable the present discussion in our ranks is too high a price to pay for it. It would be an excellent thing, not only for the Council but for the whole profession, if the subject of statutory registration were relegated to oblivion for five or ten years. Neither of the two methods before us has the slightest chance of acceptance by the main body as a whole, but in five, or still more so in ten, years the atmosphere surrounding the subject will have changed, and the discussion probably then lead to some agreement.

I am convinced the profession generally would be thankful for the proposals to be put entirely on one side for years. With this belief may I suggest a resolution by the Council somewhat on these lines :—

"This Council believes it would be to the interest of the profession that the official consideration of statutory registration be postponed for five years."

The best proposer would be the President as occupying the central position, and if he thought it an advisable resolution the acceptance would probably be unanimous. If it resulted in peace it would be a fitting conclusion to his great work in the chair.

Failing the President, then may I suggest, naturally, Mr. Cross as the proposer.—Thanking you,

Chas. H. Heathcote,
Vice-President, R.I.B.A.

110 Cannon Street, E.C.
June 5.

Patriotism and Prices.

To the Editor of The Architect.

Sir,—In the course of my work to-day I had to buy a bedroom grate, the price of which in Thames Street, without any tile surrounds or mantel, was 62 shillings. In design and construction it was of the simplest, and if a man like Henry Ford had produced it, by modern methods, the price would probably have been round about 62 pence, yet I was advised that prices are to be advanced. The question I should like to ask in your columns is whether any advances on present prices are justified by existing conditions ? Wages have gone down, production has gone up. From the national point of view it is of the utmost importance that if prices take to themselves any movement, direction should be downward. The Government are again making a forlorn attempt on "Housing," and an increase in prices will bring this second campaign to as untimely an end as the first, with results which may easily be disastrous, and we may be confronted with the problems of 1923 in 1928.

Speaking from my own experience, a house in Berkshire, built from my designs, is now being finished at a cost of 1s. 2d. a cubic foot. A year or so ago the price would have been 1s. 9d., compared with a pre-war price of 8d. If we could only get middle-class houses built to-day at, say, 10d. to a shilling, the volume of work resulting would be surprising, and the short-sighted manufacturer would reap a greater reward from a policy of small profits and quick returns than his present extortionate methods. He might also bear in mind that the results would be far-reaching and tend to reduce unemployment in other trades.

It would indirectly help to solve the housing of the working classes, as many middle-class families are to-day living in cottages which are more suitable for working men.

If only we could have a general recognition of the fact that the profiteer, with money to spend, is dead, buried, and, one hopes, in some cheerless hell, we might make progress.

The average decent middle-class man, who does the work of the world and pays the piper, is poor—very poor, indeed ; yet he still supplies the main volume of business. If the market of his trade is to be captured, all over the world, it is not good business to try and charge him as much as possible. The clever and the patriotic thing is to try and give extremely good value, for as small a profit as is possible, and depend on the turnover.

The Government themselves are not free from blame, because their revaluation proposals appear to be based on greed and will not help matters.

I therefore appeal to all architects, builders and building owners, to give this question of any advance of prices their very careful attention and to watch the manufacturers' trusts. These people have not any souls to save, but, by combination, we may be able to kick their bodies into the paths of rectitude.

C. H. B. Quennell.

17 John Street,
Bedford Row, W.C.1.
June 5, 1923.

The Heating of Houses.

To the Editor of The Architect.

Sir,—We have read with considerable interest the article on page 371 of your issue dated June 1, entitled "The Heating of Houses from an Architect's Standpoint."

While we quite agree that large numbers of potential owners of small houses and bungalows expect to be able to install a hot water supply and a system of hot water heating by radiators at very much less cost than the work can be efficiently carried out, we cannot help feeling that your article is unduly pessimistic, both as regards the cost of installing and the difficulties of working a small central heating system.

We think that any competent and experienced heating engineer would be quite willing to install an independent boiler and a system of central heating giving, say, 125–150 square feet of radiation (say, 5 or 6 radiators of medium size) for somewhere between £80 and £100, depending on the locality and the intricacy or otherwise of the pipe work.

Apart, however, from our contention that you place the figure of installing very much too high, we might suggest that, with all due respect, your article has not advanced with the times, as there is no necessity to have a separate heating chamber, modern practice being to put the boiler in the kitchen or scullery, preferably the former, so that it can be operated without calling in outside assistance. Our "Sentry" Duplex No. 6 boiler, which is a special design for the house of medium size in which hot water supply and heating are required, has been specially produced for installation in the kitchen. It is not so large as to make the work of stoking it heavy in the winter, but it is large enough to provide for, say, half a dozen radiators of 25 square feet each. It will, at the same time, supply all the hot water that can be found a use for in baths, basins, etc., in a house with one bath-room. We ought to make it clear, of course, that the "Sentry" Duplex No. 6 actually consists of two separate boilers operated by one fire. Radiators are, of course, quite frequently operated by the domestic supply boiler, and large numbers of "Sentry" boilers of the ordinary pattern are so employed. Unfortunately, however, the water supply in Great Britain is rarely suitable to make it worth while adopting this practice on anything but a most limited scale. If the water is too soft, then, of course, radiators cannot be used at all on the domestic supply boiler ; on the other hand, if the water is hard it is generally so hard that the radiators have a life of anything from six to twelve years, after which they become inoperative.

Notwithstanding this disadvantage, however, it is considered that the simplicity of low first cost of operating, say, one or two radiators quite close to the boiler counterbalances the disadvantage in having to change the radiators and piping after, say, ten years' work. When, however, anything more elaborate in heating is required the only plan is to have two boilers, and this, until the production of our "Sentry" Duplex No. 6, inevitably meant two fires, one of them in a heating chamber stoked by the gardener or other outside help ; hence radiators were seldom installed in small houses.

Large numbers of our "Sentry" duplex boilers are now in use, and we are glad to say that the users have expressed nothing but the highest praise for the comfort and convenience they provide, while, owing to the combination of the two boilers with the one fire, they are not only economical in upkeep but they are also lower in first cost than two separate boilers would be.

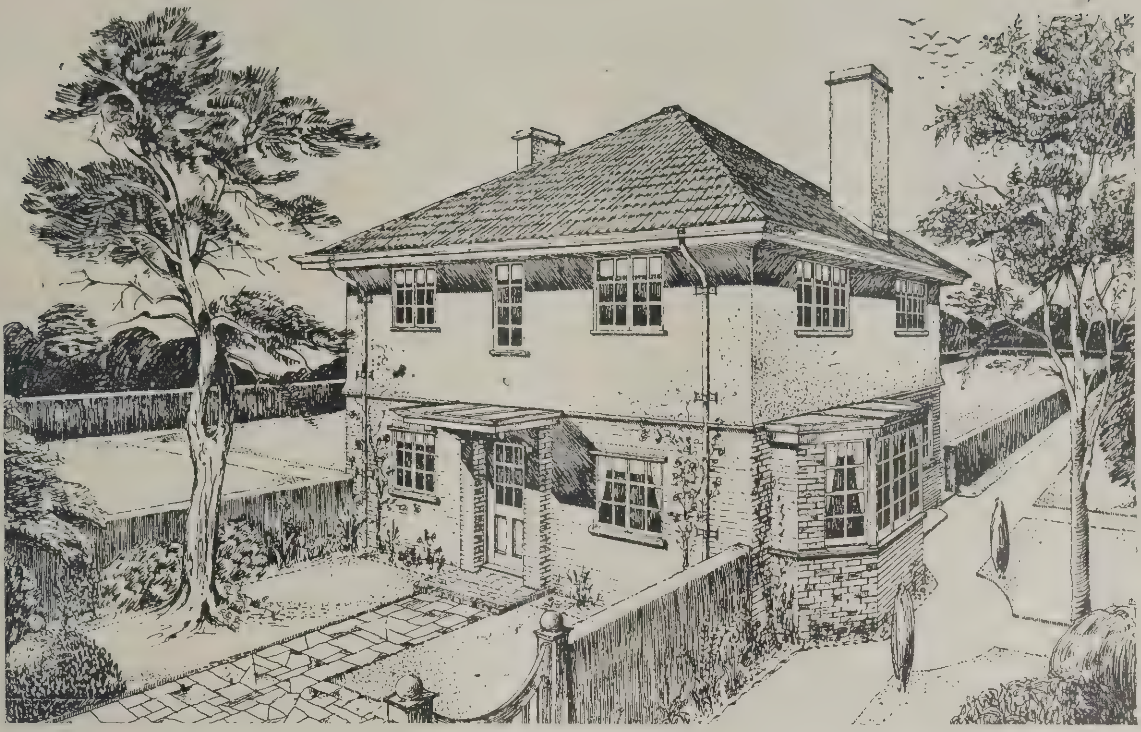
We ought to add that there is nothing remarkably ingenious or complicated about our "Sentry" duplex boiler, it is merely that nobody has hitherto thought it worth while to produce an article of this kind ; in fact, the high cost of fuel and the greatly increased demand for labour-saving appliances in the modern house have created the market for the duplex boiler. Not the least valuable feature of this design is the arrangement whereby the boiler is reduced in size for summer work, and cooking can be carried out on the hot plate both in summer and winter.

We must apologise for the length of this letter, which we would assure you is sent in no sense of endeavouring to obtain a little cheap publicity, but because we have always found architects so extremely interested in the "Sentry" duplex boiler, and we feel sure that most of your readers will be interested in this matter.—Yours, etc.,

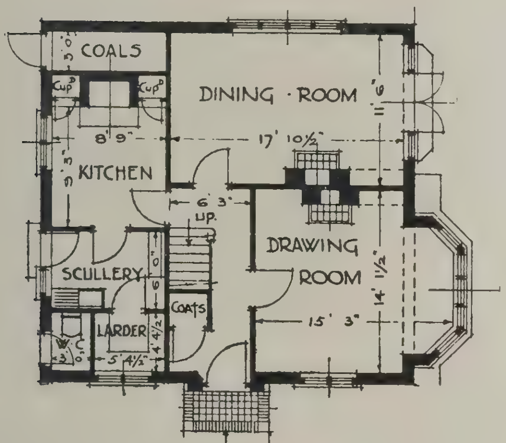
Wood, Russell & Co.
G. Deane Russell.

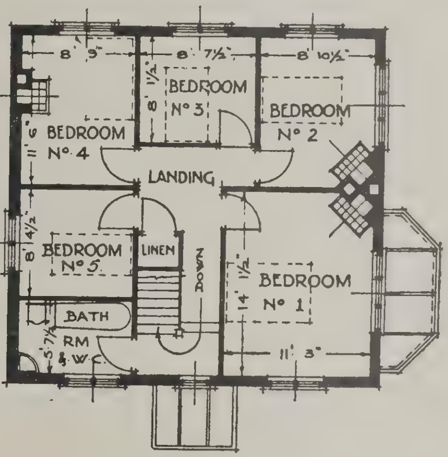
34 Oxford Street,
W.

Wrexham Town Council have decided to purchase land in King Street, at present occupied by the Wrexham Lawn Tennis Club, for the purpose of erecting a new Town Hall. The Council have approved a plan prepared by Professor Abercrombie of Liverpool for a new public square near the Great Western Railway Station for a site for the Royal Welsh Fusiliers war memorial.



C. W. Clark, Architect. The Unit Construction Co., Ltd., Contractors.





Homes in Metro-land.

"Metro-land," as every Londoner, and probably nearly every non-Londoner, knows, is the considerable belt of country served by the Metropolitan Railway. Beginning, say, at Neasden, it runs westward for some twenty miles or more through charming districts whose allurement few town workers could deny. The railway company have thus opened up a wide area and rendered it ripe for development. In that development they are themselves playing a conspicuous part. Bitter experience of the past has taught how necessary it is to exercise foresight if irreparable mistakes are to be avoided in opening up new residential areas. Profiting by that lesson the railway authorities are taking steps to ensure that it shall not occur within their kingdom. Some six estates are now being developed by its affiliated companies. The principal one is the Cedars estate of 500 acres, which is served by Rickmansworth and Chorley Wood stations, which are 17½ and 19½ miles from Baker Street. Then comes the Grange and the Cecil Park estates, served by Pinner, 11¼ miles; next the Chalk Hill and Wembley Park estate, north and south of Wembley Park station, 6½ miles; and the Kingsbury estate, which is served by Neasden, 5½ miles from Baker Street. Over four hundred houses have been erected on these estates since 1919. The Metropolitan Railway Co. has an attractive scheme whereby houses or bungalows can be put up to the order of a prospective owner and the cost may, after payment of an agreed deposit, be spread over a period of years. "Homes in Metro-land" is the name of the booklet published by them in order to explain the scheme and to give typical plans and perspectives of over forty houses already put up to the designs of fifteen different architects. Each house is accompanied by a business-like description of the accommodation, fittings, and other important facts. The prices quoted include architects' fees, the cost of the area of land stated, and the property decorated and fitted according to a specification which will be submitted to the purchaser. These prices, it should be added, are subject to verification by the contractors at the time of placing on order to build. There is no necessity for the purchaser to adopt the suggested plans—they can be varied in detail or be ignored altogether, and an entirely fresh design obtained. It is also possible to buy sites as a speculation.

"Homes in Metro-land" (which is published at 2s. 6d.) is a characteristic publication of a far-sighted and enterprising company which is determined it shall not be said of their territory that "every prospect pleases and only man is vile."

H.M. the King has graciously accepted a copy of the second publication of the Print Society, "66 Etchings," edited by E. Hesketh Hubbard, R.O.I., A.R.W.A., the founder of the Society, with an introduction by Kineton Parkes.

Mr. Benjamin Williams Leader, R.A., the landscape painter, of Burrows Cross, Gomshall, Surrey, who died on March 22, aged 91, has left property of the value of £86,185, the net personalty being £85,736.

The committee appointed to consider the repair of the Cuckfield Parish Church roof have asked Mr. Philip M. Johnston, F.S.A., F.R.I.B.A., to report on the condition of the roof. The committee have in mind the rehealing of both north and south sides with Horsham stone, if obtainable at a reasonable figure. The cost is expected to be about £2,000.

The R.I.B.A. and the Housing Bill.

On the recommendation of the Housing Committee, the Council of the R.I.B.A. endeavoured to obtain the following amendments to the Housing Bill during the Committee stage. The amendments were put forward by the member for West Newcastle-on-Tyne (Mr. Adams) and the member for West Walthamstow (Mr. McEntee), respectively. The Minister of Health was unable to accept either amendment.

1. To be inserted at the end of Sub-Section (2), Section 1 :—

And provided that in the design of the houses regard shall be had to the amenities of the neighbourhood, to convenience of planning, to suitability of aspect, to architectural appearance, and to the provision of adequate space between and about the buildings.

2. The following new Sub-Section to be inserted after Sub-section (2), Section 1 :—

Before being approved by the Council of a Local Authority the designs for the houses shall be publicly exhibited for a period of not less than seven days, and if within a further period of seven days following such public exhibition written objection is made to the Council by not less than ten ratepayers in the area of the Local Authority the Council shall take into consideration such objections and if they think fit shall invite the Royal Institute of British Architects to nominate one or more architects to advise them on the designs.

Private Builders and the Grant.

Captain Terrell, M.P., has received the following letter from the Minister of Health in reply to his appeal for a ruling as to the position of private enterprise under the Housing Bill :—

"The Government grant will not be paid direct to private persons building houses. The grant will be paid to the local authority, who will administer the grant and may add to it out of their own funds. The local authority will have power to grant assistance in the ways described in Clause 2 of the Bill. These ways are intended to be alternatives.

"Where houses are built by private enterprise with assistance from the local authority, and the total assistance granted by the local authority is equal to, or greater than, the equivalent of £6 a year for twenty years per house, the Government grant to the local authority will take the form of an annual payment to the local authority of £6 a year for twenty years. Where the total assistance granted to a private person is worth less than £6 for twenty years, the Government grant to the local authority will be an annual payment equivalent to the assistance actually granted by the authority.

"Where a local authority carries out an approved building scheme itself the Government grant will be £6 a house for twenty years. In no circumstances will the Government grant exceed £6 for each house for twenty years, which is approximately equivalent to a capital sum of £75 per house."

Singapore Society of Architects.

A meeting of the Singapore Society of Architects was held at the Asiatic Society's Room, Raffles Museum, on April 19. The President, Capt. S. Douglas Meadows, A.R.I.B.A., chief architect to the Municipality of Singapore, presided, and some 30 members attended.

The following members were elected to the practice standing committee :—Messrs. Le Cain, F. G. Lundon, J. B. Westerhout, W. L. Williams and Major P. H. Keys, D.S.O.

The following three members were elected to serve on the art committee.—Messrs. W. J. Brown, F. Dowdeswell and R. M. Love.

The voting for the finance committee resulted in Messrs. J. B. Westerhout, Campbell Oman and F. W. Brewer being elected.

The President announced that, as directed by the council, a letter had been addressed to the R.I.B.A., London, applying for affiliation to that body, and this action by the council was enthusiastically confirmed by the general meeting.

The President also intimated that he hoped to inaugurate an exhibition of competition drawings, under the auspices of the Society of Architects, and made a suggestion that competitions generally should be under the control of the society. The practice or one of the other committees would be responsible for the conduct of architectural competitions, and they, on behalf of the society, would nominate an assessor, and publish his award and also arrange for the exhibition of competition drawings. This, the President suggested, was the correct way in which competitions should be run. He suggested that persons contemplating building, and desiring an architectural competition for the design of the building, should apply to the society, in order to obtain the best advice as to the proper carrying out of the work.

Another matter discussed was the formation of a library, and to this end the society had solicited the help of Mr. J. Johnson, the Librarian of Raffles Library, who was present at the meeting, and who offered every assistance.

The important question of the classification of local architects was also discussed, and Mr. Douglas Meadows was able to announce that this matter had been referred by the Municipality to the Society of Architects for their view on the subject. He suggested that the only competent classifying authority is the profession itself, and it is for members to say who shall be admitted to their profession.

Forthcoming Events.

Friday, June 8.—Town Planning Institute. Annual General Meeting at 92 Victoria Street, S.W. 5.30 p.m.

Institution of Municipal and County Engineers. Scottish District Meeting at Stirling (two days).

Monday, June 11.—Royal Institute of British Architects. Business General Meeting. Election of the Council and Standing Committees. 8 p.m.

Wednesday, June 13.—British Architects' Conference, Edinburgh. Smoking Concert, arranged by the Incorporation of Architects in Scotland, at 15 Rutland Square. 8 p.m.

Thursday, June 14.—British Architects' Conference. Welcome at Council Chamber, Edinburgh, 10.15 a.m. Luncheon, 1 p.m. Motor Drive to Holyrood Palace, 2.15 p.m. "At Home" in the National Gallery, 4.30 p.m. Reception in the City Chambers by the Lord Provost, 8 p.m.

Friday, June 15.—British Architects' Conference. Motor Drive to Dryburgh, Melrose and Peebles, 9.15 a.m. Banquet at the Freemasons' Hall, 7.30 p.m.

Royal Society of Arts. Meeting at John Street, Adelphi. Paper by Sir J. H. Marshall, C.I.E., M.A., Litt.D., F.S.A., Director-General of Archæology in India, entitled "The Influence of Race on Early Indian Art." 4.30 p.m.

Institution of Municipal and County Engineers. East Midland District Meeting at Skegness (two days).

Institution of Sanitary Engineers. General Meeting and Luncheon at the Holborn Restaurant, 11.30 a.m. Visit to London County Hall, 3 p.m.

Mouldings.

One of the leading firms of moulding manufacturers in London is unquestionably the West London Timber and Moulding Co., Ltd., whose considerable works are at Strand-on-the-Green—a riverside village close to Kew Bridge, which woke up to find itself famous a few months ago. It may sound somewhat obvious to say that this important business has been built up on the sound lines of quality combined with moderate prices ; but none the less it is well to say it. Good quality is not sacrificed to price nor is a moderate price sacrificed to quality. It is sometimes difficult to combine these characteristics nowadays, in face of keen competition at home and from abroad. But the West London Timber and Moulding Co. have consistently achieved the feat during the past fifteen or twenty years and continue to supply the trade with high-class goods at a reasonable figure. A speciality of theirs is the manufacture of mouldings, skirtings, etc., to architects' designs—they lay themselves out for this kind of work, they are always willing to consult with architects, and want architects to reciprocate by specifying their mouldings. Another feature is the speed of delivery ; when necessary this is done within twenty-four hours of receipt of order. Architects may therefore, with confidence, recommend contractors working for them to obtain their mouldings from this firm. The whole of the business is under the personal supervision of the managing director, Mr. T. Denne, who has not only had some years' practical experience as a timber worker but also as a surveyor.

During the twenty years or so the firm have been at Strand-on-the-Green it has proved necessary to enlarge the works and offices more than once. Their close proximity to practically all the principal main railway lines is of considerable advantage in carrying out country orders. The yards hold a very large stock of hard and soft timber, specially selected for quality, as well as a big supply of finished mouldings to most of the numerous patterns illustrated in their latest catalogue. It is worth recording here that some of the stock patterns have been designed with very few members so that little dust can collect on the architrave or skirting, picture-rail or dado. The catalogue, by the way, does not include the customary sash and window sections ; but these are supplied by the West London Timber and Moulding Co. at the lowest current prices.

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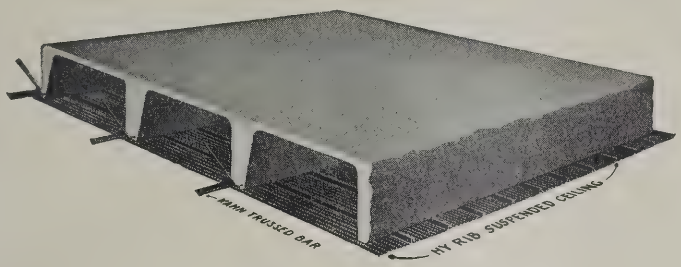

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Lyons' New Corner House.

"A great ivory-white pile gleaming softly in the sunshine" is one description of the Empire's largest restaurant. Built of ivory faced terra-cotta in the English Renaissance style, it has five public floors, each a model of luxurious decoration. The new extension to the Coventry Street Corner House is a triumph of skill.

Essential to efficiency, though hidden from public view, are the four oil-fired boilers by Babcock and Wilcox, similar to the six recently installed at Lyons' Greenford factory. These boilers, which are steel cased, provide steam at 200 lbs. pressure, superheater by 50 degrees Fah. The boiler and pipe coverings were supplied by Matthew Keenan and Co., Ltd., well-known specialists in this class of work. The high pressure piping was manufactured by Aiton and Co., Ltd., who handled the contract for this material in connection with Gennevilliers Power Station in Paris, the latest and largest in the world.

Of the more spectacular part of the building, mention must be made of the hollow-block floors, mansard slopes, ferro-concrete staircases and granolithic work carried out by F. Bradford and Co., of Homerton.

H. T. Jenkins and Son of Torquay were responsible for the marble work which adds to stateliness of this building.

Bricks, Portland cement, glazed tiles and similar materials were supplied by the old-established firm of Sankey and Co., Hammersmith, together with partition blocks.

Consideration for the comfort of their patrons was evidenced by the proprietors in their choice of Waygood-Otis lifts, of which a number are installed.

The illumination of the whole of the immense building by Osram gas-filled lamps is significant of the confidence which efficiency has earned for them.

It is computed that Lyons will consume as much gas per day as a town of 100,000 inhabitants, and this will be supplied by the Gas Light and Coke Company.

W. and T. Avery, whose weighing apparatus are so well known, have fitted out the premises, and the numerous scales and balances in the chocolate salon bear their name.

In conclusion it must be said that manufactured weather is a distinct scientific advance, and in our by no means certain climate it is pleasant to know that, thanks to the Carrier Engineering Company's plant, one finds a cool atmosphere on a summer day, and a pleasantly warm temperature on the probable succeeding Arctic one.

General.

Leicester Housing Committee are asking the City Council to sanction the erection of 571 more houses.

The late Mr. B. P. Blockley, of Wellington, Salop, brick and tile manufacturer, has left estate valued at £49,455, net personalty £25,000.

The Ministry of Health has sanctioned the borrowing of £52,196 for the erection of 100 additional houses on the Victoria Drive site, Eastbourne.

A lay-out plan for the Greenford Hall Estate (Middlesex) has been approved by the Greenford Council. The estate has a capacity of 200 houses.

The London Underground state that a contract has been placed with Messrs. John Mowlem and Company for £67,784 for escalators at Tottenham Court Road Station.

The French Minister of Fine Arts has issued a decree accepting the legacy of 100,000 francs left by the ex-Empress Eugenie, widow of Napoleon III., for the reconstruction of Rheims Cathedral.

Mr. Glendinning Moxham, F.R.I.B.A., recently reported upon the restoration of Sketty Church spire. His recommendations have now been adopted and the work will be put in hand immediately.

The Hampshire County Council have decided to spend £14,000 on adapting "The Mount," Bishopstoke, as a tuberculosis sanatorium and £13,000 on the provision of a new hostel at the County Farm School.

Mr. F. G. Minter, the purchaser of five and a half acres of open space at Mornington Crescent, at the north end of Tottenham Court Road, has written to St. Pancras Borough Council offering them the site for what it cost him.

Mr. Thomas Chadwick, A.R.I.B.A., hon. vice-president of the Manchester Society of Architects, died at his residence at Heaton Chapel on the 19th ult. The funeral took place at Philips Park Cemetery, Manchester.

The Wigan Education Authority has decided to provide two new public elementary schools, each of which will afford accommodation for 800 children. One of the schools will be erected in the Whelley area, and the other will be built in Pemberton.

The White Star Company have founded an annual prize of ten guineas in the Liverpool School of Architecture for the design of a portion of the interior of an Atlantic liner. The subject will be set each year in consultation with the General Manager of the Line.

Sir Ambrose Poynter, Bt., F.R.I.B.A., died at a nursing home on May 31, aged sixty-five. From Eton he went on to South Kensington and the Royal Academy Schools, and was articled to G. Aitchison. He began practice as an architect in 1893, ten years later entering into partnership with Mr. Wenyon.

Lord E. Percy, replying last week to Mr. T. Thomson (Ind. L., Middlesbrough, W.), said that the Minister of Health had, under the new Housing Act, approved proposals for the erection of 5,579 houses, of which 3,637 would be built by local authorities. In addition, schemes for some 4,000 houses, undertaken before the introduction of the Housing Bill, would come into the present scheme. On May 1, 285 local authorities had 14,659 houses still to be completed under the previous scheme.

A syndicate, mainly composed of business men of Newton Abbot, have completed lengthy negotiations with the Earl of Devon for the acquisition of the whole of his lordship's land at Milber. It is hoped to build 270 houses on the site and to equip the district with shops, public gardens, tennis courts and golf links. The Urban Council are stated to be considering an offer by the same syndicate to take over the unbuilt portion of the Council's housing site and erect 50 working-class houses.

Sir Halford Mackinder, the chairman, and five members of the Committee appointed to survey the prices of building materials intend to visit Scotland for the greater part of the week beginning June 11. The Committee will hold discussions with the Corporations of Glasgow and Edinburgh. Their object is to secure first-hand knowledge of prevailing conditions in the North, and to investigate any evidence which might be brought to their notice of the existence of trusts for keeping up the price of materials.

The death occurred at Hastings on the 3rd inst. of Alderman Albert Edwin Sawday, O.B.E., J.P., F.R.I.B.A., a member of the Leicester City Council for 45 years and Mayor of the city in 1903. Alderman Sawday, who was in his 72nd year, had been in failing health for some time. As an architect he enjoyed an extensive practice, being responsible for numerous big factory buildings in the district, as well as the Poor Law Offices. He served his articles with a London firm, and was for a time in partnership with Mr. Francis Redfern, at Leicester.

Mr. Peter Fyfe, Director of Housing to the Glasgow Corporation, has tendered his resignation to the Housing Committee. The committee have agreed to recommend to the Corporation that his retirement should take effect on May 31, and also that, in view of his long and faithful service, extending for a period of 43 years, Mr. Fyfe should be paid a retiring allowance of £750 per annum, being one-half of his present salary. The Housing Committee have recommended the appointment of Mr. John Bryce, principal engineer of the Corporation housing schemes in succession to Mr. Peter Fyfe.

At a meeting of the Glasgow Corporation on the 24th ult., a deputation from the Joint Committee of Architects, Surveyors and Building Trades Representatives was heard with regard to the preparation of designs and plans of public halls and other public buildings proposed to be erected by the Corporation. Mr. James Lochhead, president of the Institute of Architects, said the purpose of the deputation was to urge that the Corporation should accord favourable consideration to the question of giving practising architects a fuller opportunity of creating the work which the Council contemplated. He specially emphasised the necessity of encouraging the younger generation of architects, and pointed out that there is in Glasgow a school of architects second to none in the United Kingdom. Ultimately the Corporation adopted a proposal by the Lord Provost that the matter dealt with by the deputation be put on the agenda for next meeting.

A meeting of the Council of the Incorporation of Architects in Scotland was held on 31st ult., at 15 Rutland Square, Edinburgh—Mr. T. P. Marwick, F.R.I.B.A., president, in the chair. There were elected six associates and two students. The following presentations were made to the Incorporation:—By Mr. H. S. Gamley, R.S.A., sculptor, a plaster panel representing in reduced scale the frieze of the Parthenon; by Mr. John Wilson and Mr. James A. Arnott, a copy of their book on "The Petit Trianon, Versailles"; and the Edinburgh Architectural Association, a copy of "Details of Scottish Domestic Architecture." Various arrangements were completed for the reception of the British Architects' Conference, to be held in Edinburgh from June 13 to 16. Reference was made to the prize instituted in connection with the Glasgow School of Art by Mr. John Keppie, architect, Glasgow. Mr. Keppie has founded a scholarship of £100 per annum for the advancement of architecture and sculpture.

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The R.I.B.A. Elections.

The result of the Institute elections show a complete reversal of the electorate's vote a year ago, proving either that they are unstable as water or that fresh facts have come to their knowledge which we do not know of. The reasons we have expressed seem to us to be still sound, nor can the fact that the electorate are of a contrary opinion make any difference to facts or values. The result may or may not bring peace in its train, but as to this there is legitimate room for doubt. Many things may happen, and some of those may be briefly summarised. Those who were returned by large majorities in 1922 to carry out a certain policy, and who carried out that policy, may reflect that it is hardly worth while to strive for the supposed interests of those who change their views in the brief space of a year and may not again concern themselves about professional issues.

On the other hand, they have possibly in defeat achieved substantial victory; that is, they may have convinced their opponents that the path to Unification is beset by so many dangers that it may be best untrodden. They may instead devote their energies to the higher interests of architects and of architecture, whatever they may be.

The new Council may proceed with a wide measure of Unification or a more restricted one which would be confined to amalgamation with the Society of Architects, but in either case they have to pass through the Caudine Forks to get the necessary two-thirds majority.

Possibly those who have opposed Unification may take the step of seceding from the Institute, either content to remain outside the walls of No. 9 Conduit Street, or forming an independent Society of their own.

One thing is certain. Different men will in five years' time be discussing different issues, imagining, as we do to-day, that those issues are paramount and all important.

But whatever happens the future of English architecture will be forming out of the present not by work done in the Institute, not by any increased governmental patronage of architects, but by the work architects do throughout the length and breadth of the land.

The amount of work and scope for the profession will be determined, firstly, by the commercial and financial condition of industry, and, secondly, by the individual energy and skill of architects and their ability to convince and please their clients.

Each architect carries—not the baton of a marshal—but the power to success which is determined by his ability to make himself useful to his clients and to obtain and maintain their continued regard. Coupled with this, he must possess the seventh sense which makes him choose the best direction in which his efforts can be most profitably expended.

All this has little or no relation to anything which the Institute or any other professional society can do for him, and he will probably be wise if he fully recognises this.

Politics frequently provide a field which many have found lucrative; professional politics promise little besides hard work and frequent disappointment, a fact which should be recognised by those who devote time and trouble to them. This is the more so because the subjects under discussion are not as a rule keenly followed or well understood by many. This is evidenced in the present election, where a poll of slightly over half of the electorate of the Institute is unprecedented in its records, while a poll of 75 per cent. in a Parliamentary contest is by no means uncommon. In addition we can often forecast with a fairly close approximation to accuracy the result of a Parliamentary election, but it is usually impossible to predict the result of that of a professional society. We often regret—when we are not seeking the votes of the Parliamentary elector—that a test of education could not be imposed before he was allowed to exercise the franchise, and it has always seemed to us an advantage that the Institute has imposed such a test on its members. But unfortunately even education does not necessarily involve the possession by the educated of a sense of logic and reasoning power, and it is precisely this capacity which is essential to sound judgment. We have often lamentable proof of this in the conduct of competitions, as instance after instance has proved to us.

Meanwhile it may be comforting to reflect that, whatever storms and vicissitudes may lie before the Institute, a state of stress and strife within its walls will not affect the career of any individual member of the profession, unless, indeed, he expends time and energy at the Institute which would be better employed over the work by which alone his success or failure will be determined.

It is natural and right that we should hold opinions, and natural and right that we should occasionally strive to maintain them even at the cost of dissensions and disagreements with those of another way of thinking, but it is wholly wrong and lamentable to believe that these matters are the real essentials. If we do we are mistaking the shadow for the substance and attaching too much weight to what is ephemeral and relatively unimportant.

We have but to look backward on the occasions which have occurred in the lives of most of us, in which issues have come up seemingly all-important at the time, but which as surveyed through the perspective of past years are seen to be immaterial.

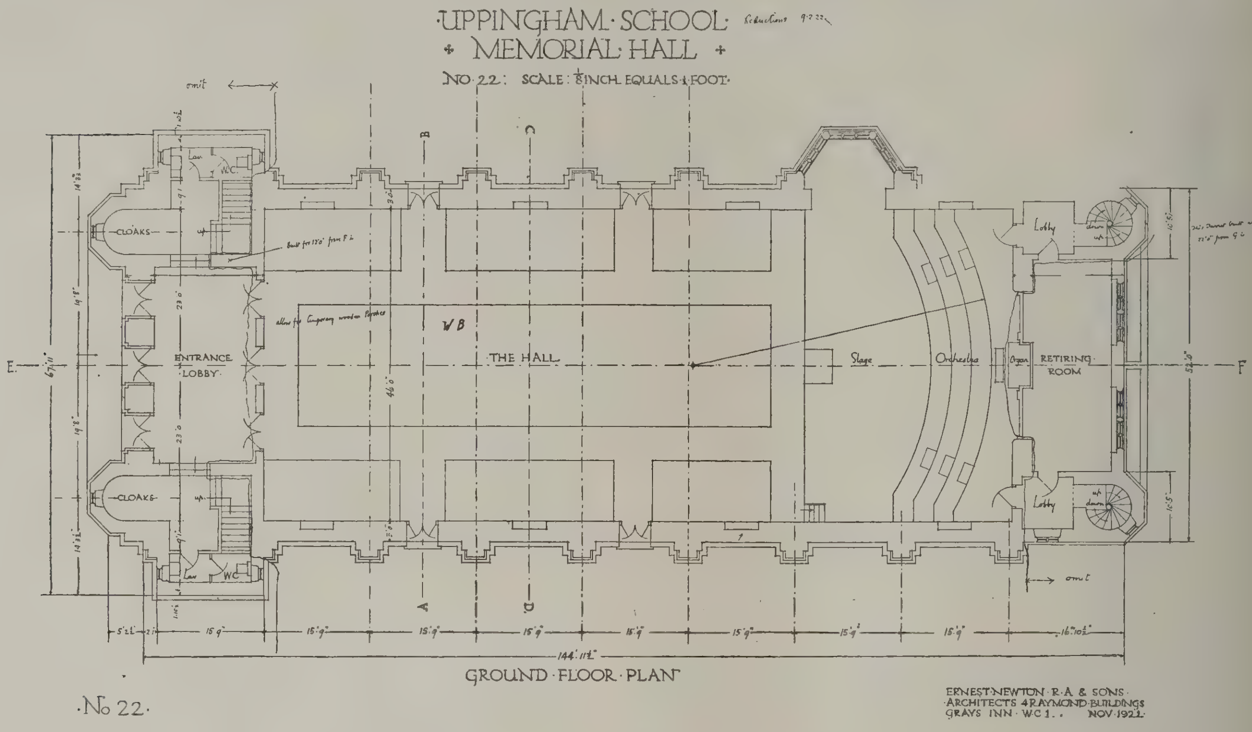
Good work done in brick and stone is not eternal, but conveys a message of pleasure and comfort for long spans of years. The enjoyment of successful work remains, though its faults become apparent to those whose powers increase with experience and use. We should learn to work as if our lives depended on the outcome, but afterwards should be able to discount the results.

It is natural at times to fight and to disagree, and it is probably healthy to do so, but we should never be without the sense of humour which will enable us to laugh at the figure we are probably cutting in the tourney of life or to take these matters as really cardinal or essential either to ourselves, our profession, or to mankind.

Our Illustrations.

THE GREAT BAY (EXTERIOR) OF THE MEMORIAL HALL, UPPINGHAM SCHOOL. Ernest Newton, R.A., & Sons, Architects.

THE INTERIOR OF THE MEMORIAL HALL, UPPINGHAM SCHOOL. Ernest Newton, R.A., & Sons, Architects.



WAR MEMORIAL CHAPEL, MOUNT ST. MARY'S COLLEGE, CHESTERFIELD. A. Gilbert Scott, Architect.

The design now illustrated is quite distinct from the memorial chapel by the same architect for Mount St. Mary's which we showed in our issue of October 15, 1920. The earlier project, which was for an entirely new structure leading out of the Long Gallery which links the main north and south blocks of the college, had had to be dropped, and a less ambitious one entered upon. In the present scheme, the existing boys' chapel serves as a nucleus for the nave as for the dome at the crossing; but the transepts, sanctuary, side chapels and sacristy will all be new extensions as well as an ante-chapel with choir gallery at the opposite end. The height of the nave will be considerably greater than that of the existing chapel as the dormitory above it will disappear, the floor removed and a barrel vault erected the full length of the new chapel. For contract purposes the immediate work has been divided into three sections, costing approximately as follows: Section I—(*a*) Sanctuary and transepts (£7,907), (*b*) reconstruction of present chapel (£1,206); Section II.—outer dome and lantern (£1,120); Section III.—confessionals and chapels south of nave (£2,190). The third section, as well as the sanctuary side chapels, the sacristy and the ante-chapel with its choir gallery, will not be commenced until further funds are raised. It is proposed to put up 8 ft. panelling in oak or a silver grey Indian wood round the walls, and to have each panel inscribed with the name of one of the Mountaineers who gave his life for his country.

Notes and Comments.

High Buildings.

A sporadic discussion still continues to filter through the public Press on the subject of higher city buildings, but the issue seems to us to be determined here by the fact that our existing streets and open spaces would be quite inadequate were the erection of much higher buildings to take place. We should—if we adopted a much greater ratio of permissible height in the City of London—have to broaden spaces between buildings, and in the end find that we had gained comparatively little increased floor accommodation, and that probably at the sacrifice of light and air. This is entirely irrespective of the very serious æsthetic issues involved, for while there seems to us to be little or no great difficulty in designing a beautiful skyscraper the close or irregular spacing of these constructural mammoths is most unsightly, while smaller and older structures round them would be put completely out of scale.

Rings in the Building Trade.

The Bill to deal with rings and trusts in the building trade might, it would seem, be more correctly described as a Bill to authorise enquiries into the subject. The Board of Trade is to be authorised to make enquiries into the nature, extent and development of trusts and combinations dealing with the production and supply of building materials having for their purpose the regulating of prices in so far as they tend to the creation of monopolies, and the same procedure is to be followed in respect to transport rates. A tribunal is to be set up to investigate complaints, and on the report of that tribunal the Board of Trade may recommend State action for remedying such defects. Thus the Bill can hardly be described as one for dealing with rings and trusts, but merely as to the setting up of machinery for making enquiries. It is inevitable that this should be so, but it may be pointed out that the tribunal may very possibly come to the conclusion that no State or other action in the matter is possible.

Guild Housing, Limited.

Under the title Guild Housing, Limited, an association of builders has been formed with premises at Agnes Road, Acton Vale, London, W., which will give firm estimates for buildings of every description and which gives continuous pay to its workers in bad weather and holidays. It pays a fixed rate of interest for the hire of its capital and devotes

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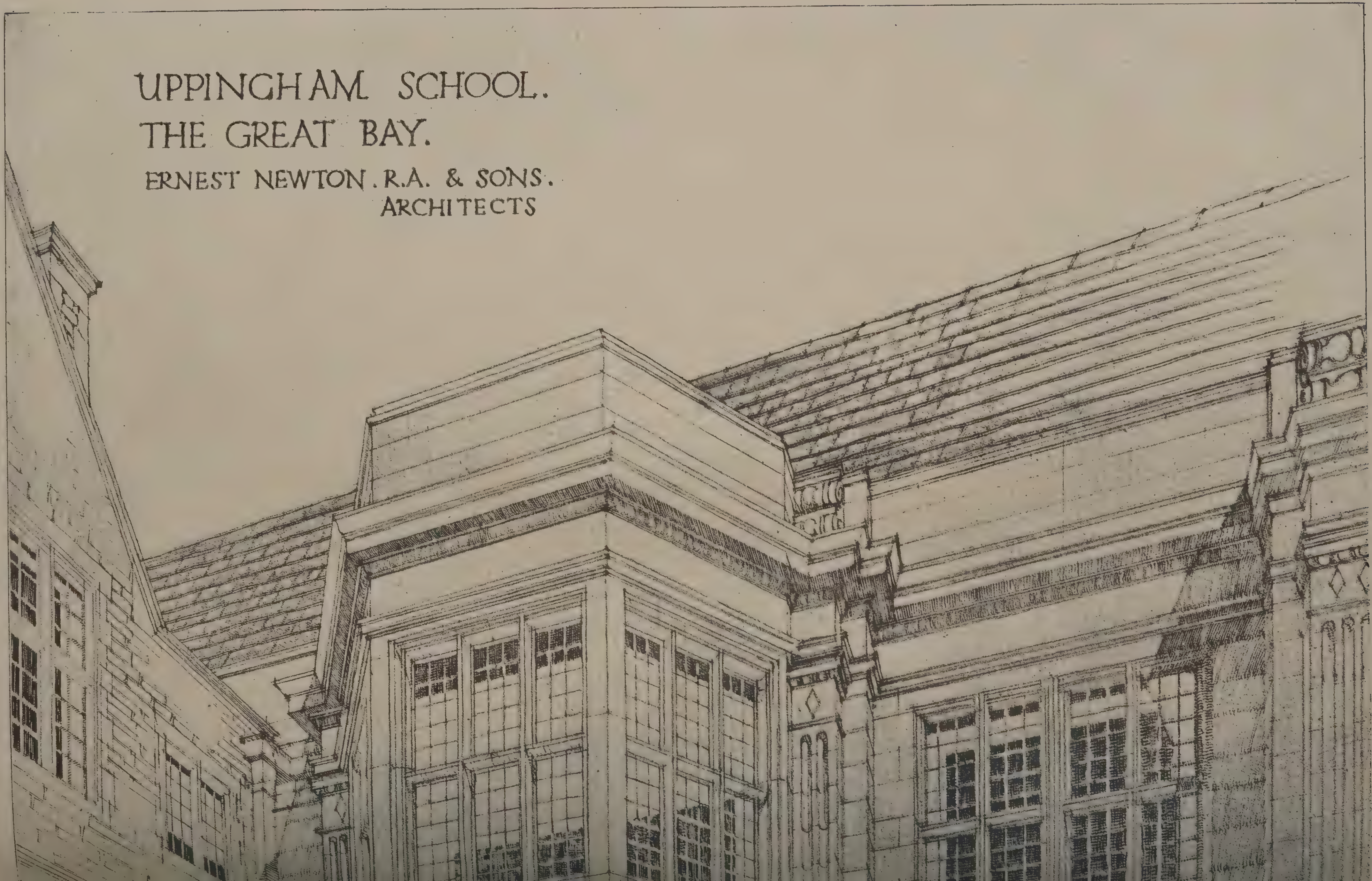

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THE GREAT BAY.
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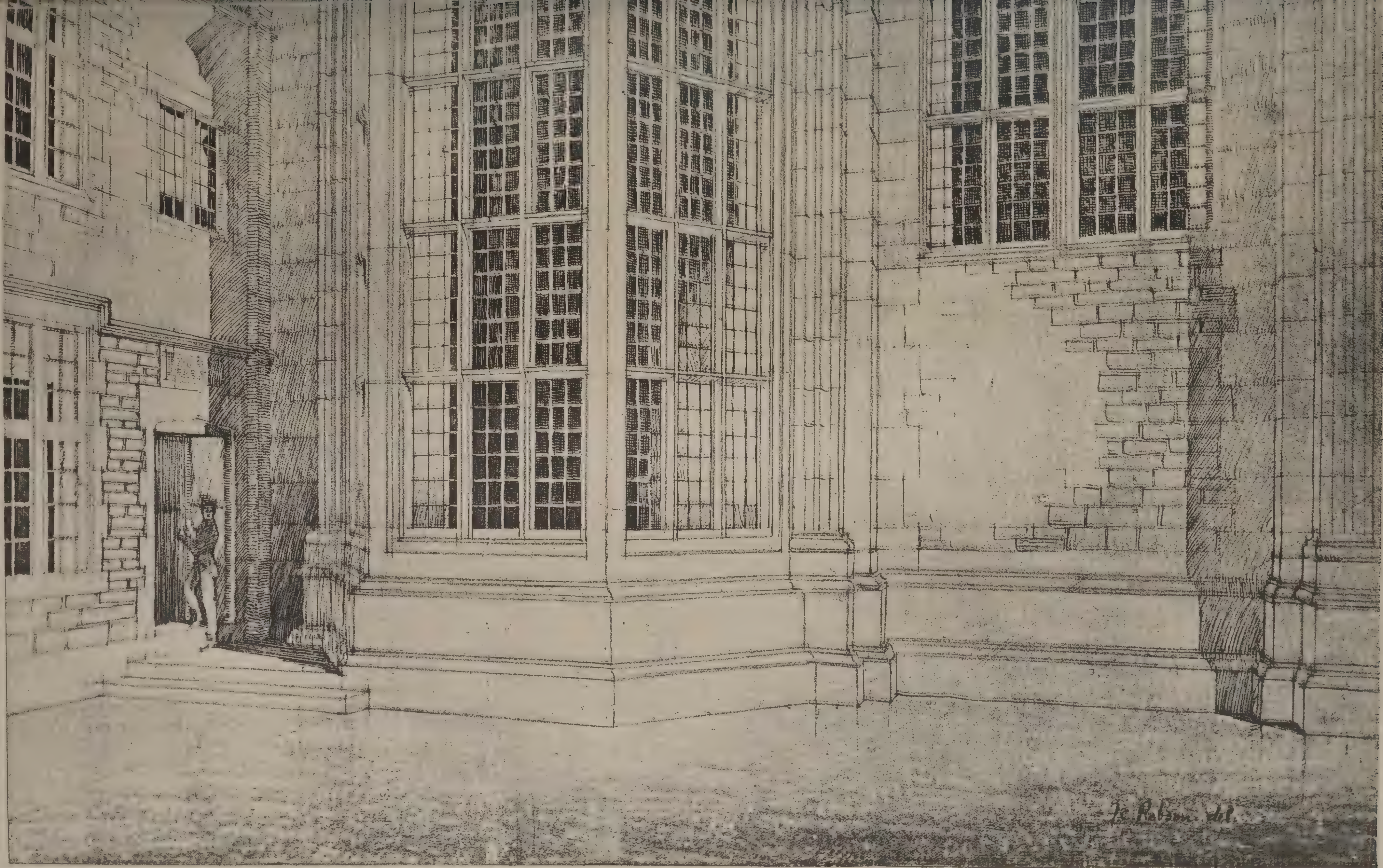
ARCHITECTS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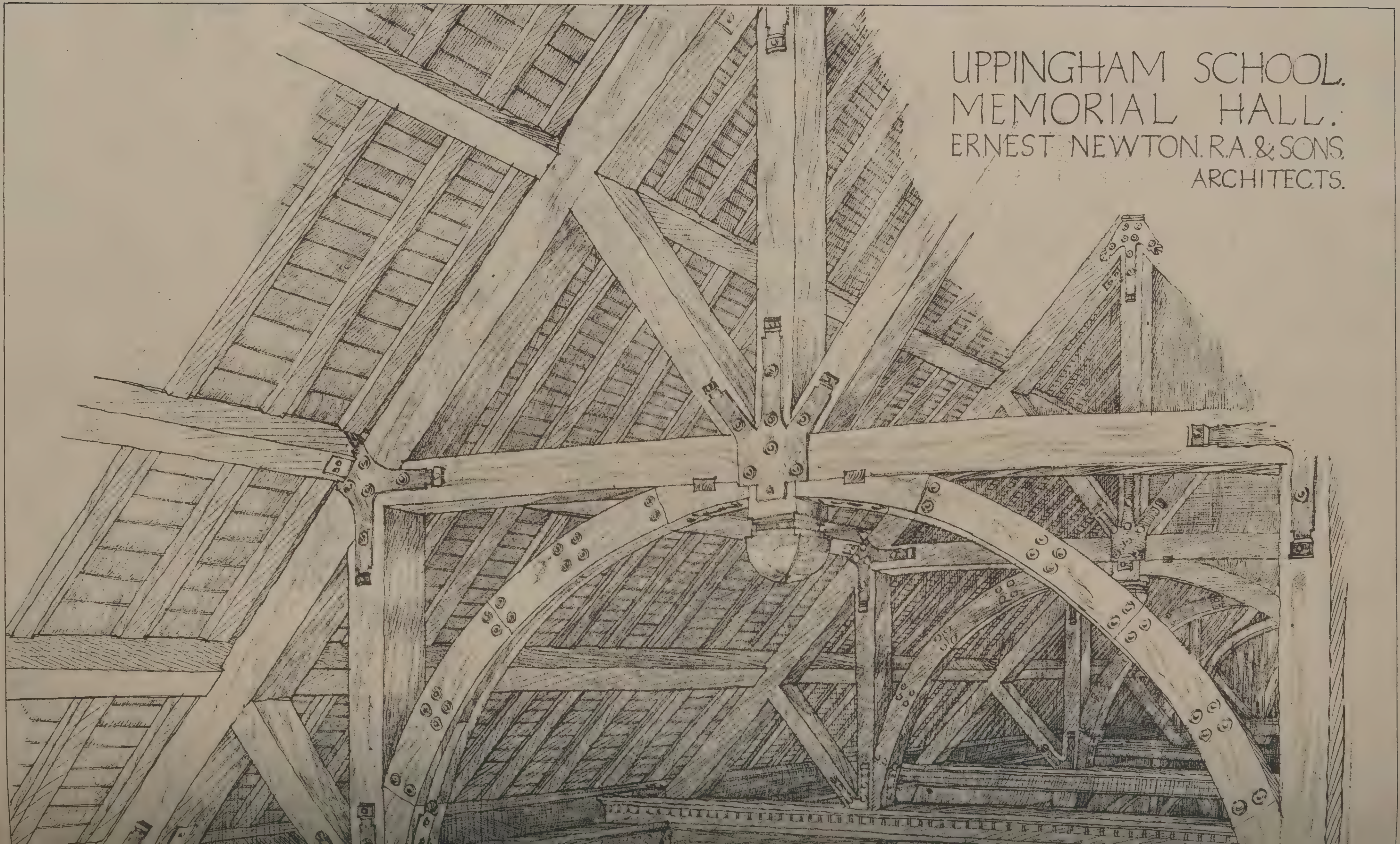

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MEMORIAL HALL.
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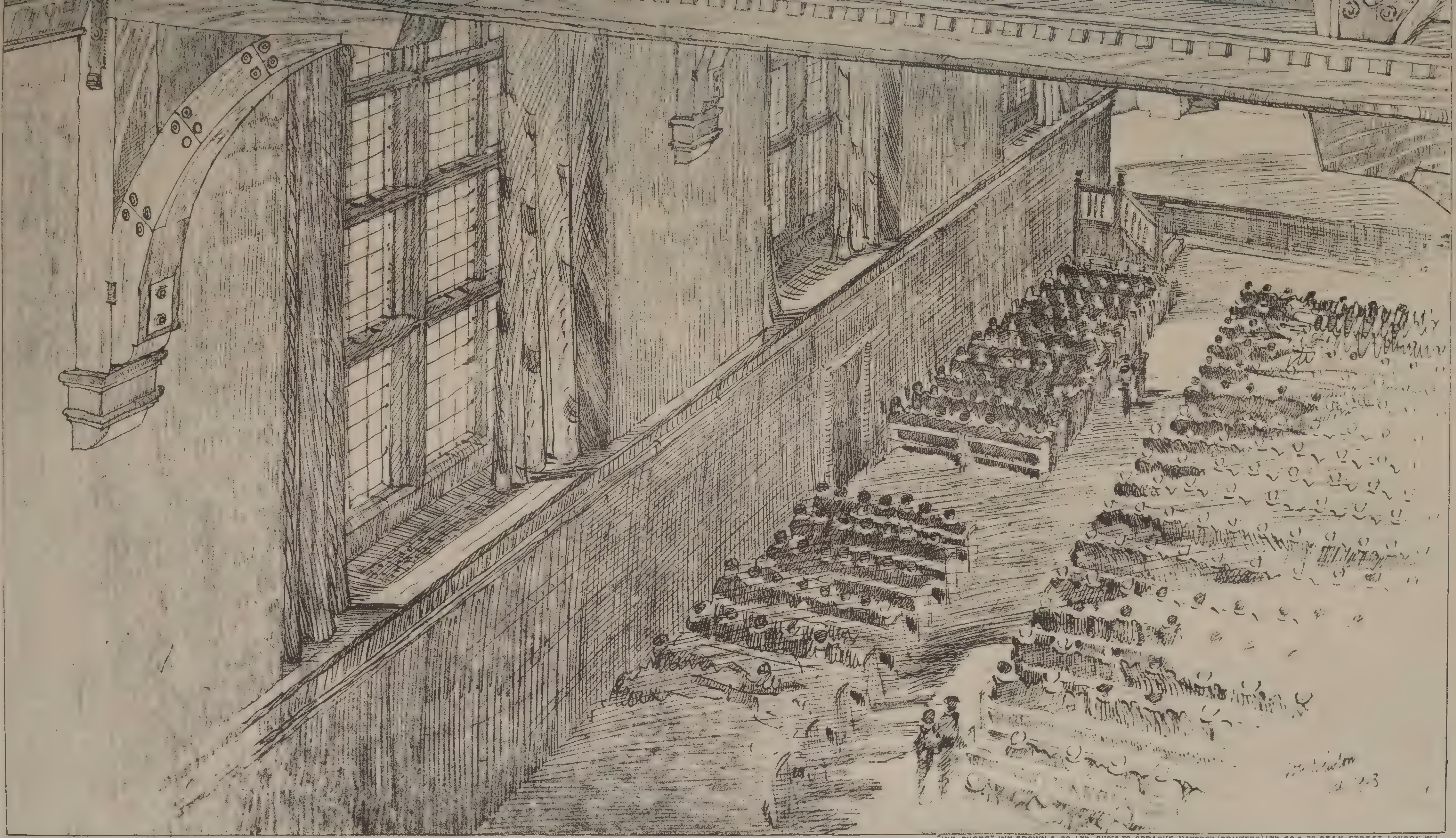
ARCHITECTS.



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MOUNT ST. MARY'S COLLEGE. CHESTERFIELD.

WAR MEMORIAL CHAPEL.

(AS BEING BUILT.) 1923.

A Gilbert Scott.
7 GRAYS INN SQ.
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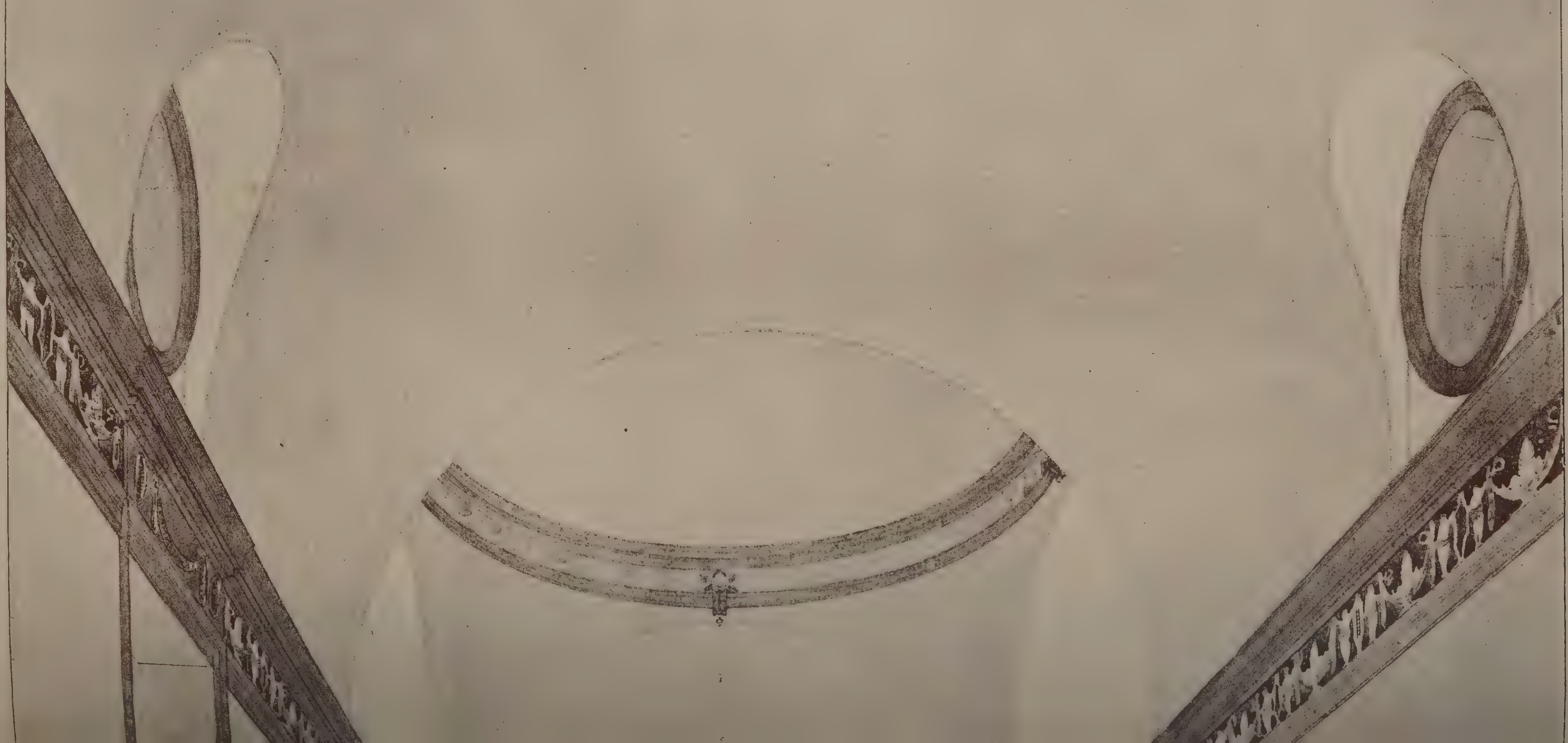

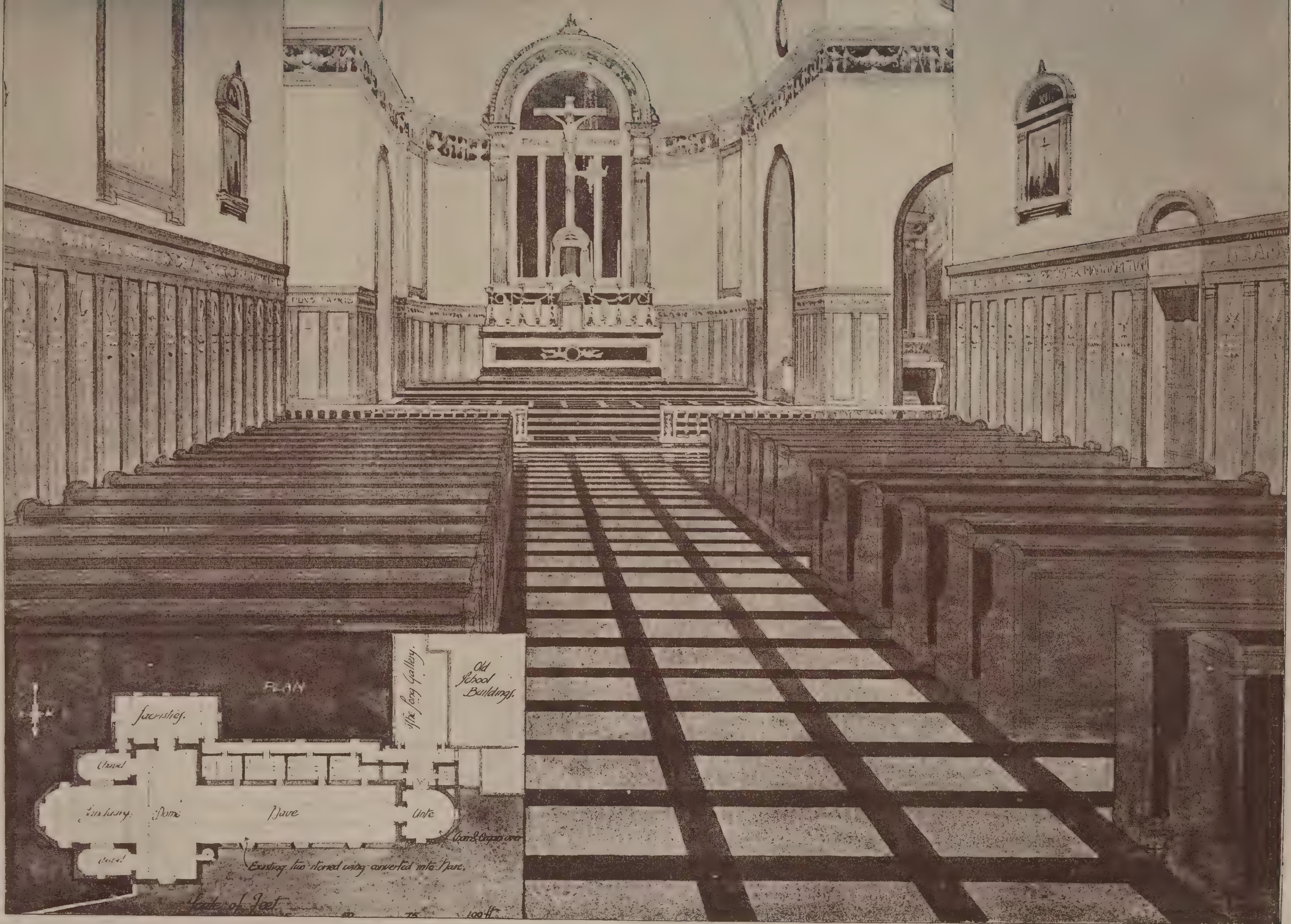

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A. GILBERT SCOTT, Architect.

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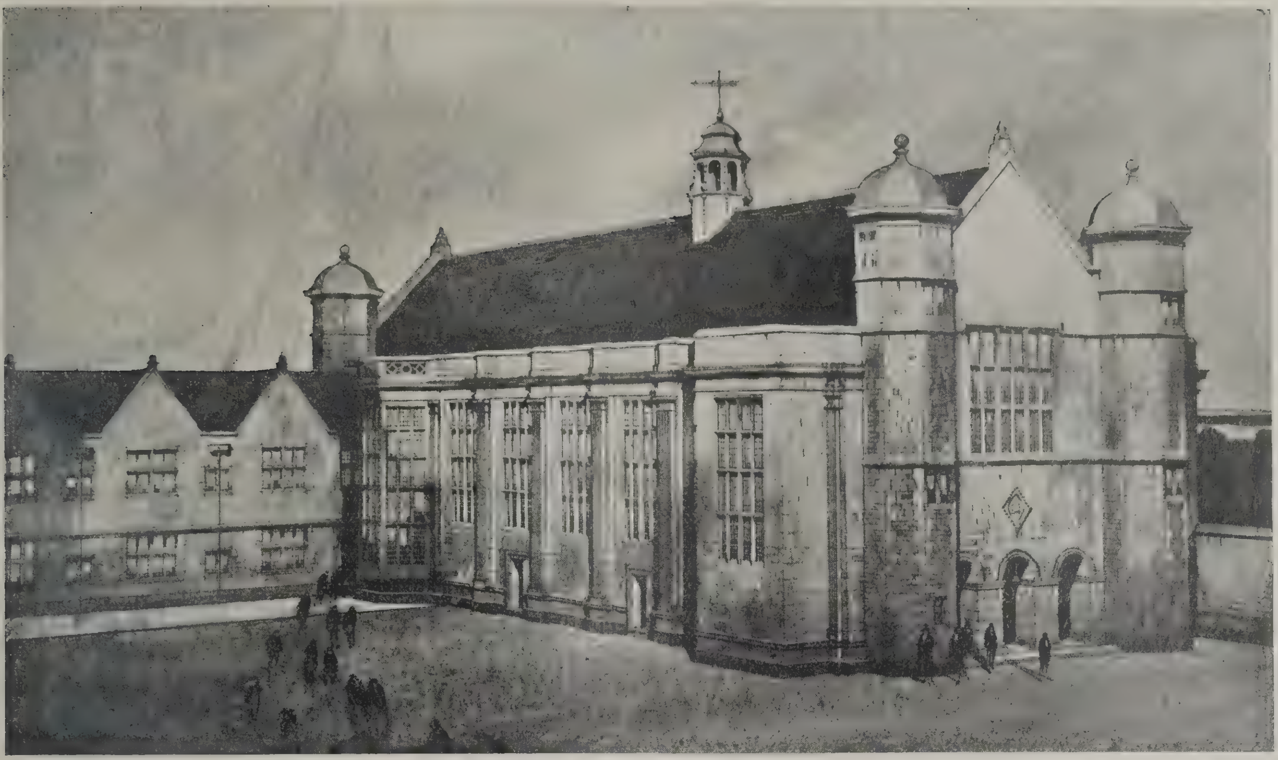


UPPINGHAM SCHOOL MEMORIAL HALL. Ernest Newton & Sons, Architects.

the whole of its earnings not to dividends, but to the improvement of its services by way of increased equipment, reserves and technical development. Its managing director is Mr. Malcolm Sparkes, and its secretary Mr. H. Barham. The Guild has published a small book illustrating types of houses which it will erect for stated prices. The Guild is determined that every house built shall be carried out under the direction of a fully qualified architect and that what they entitle a "guild" quality of workmanship shall be ensured.

We hope the association will meet with success, which will, as usual, largely depend on its ability to secure capital on reasonable terms coupled with efficient management.

Artists in Harness.

Under the above title Mr. Thomas Derrick, the Instructor of Decorative Painting at the Royal College of Art, suggests that there is a fine school of decorative painting in this country whose services should be utilised for mural decoration. This suggests the question as to whether most people want pictorial mural decoration or whether in most cases they would not prefer to be without it. We may say that in a restaurant, cinema, or other resort of that nature there may be considerable room for the employment of mural decoration, but in many buildings, and notably in houses, the average man would probably prefer to reserve his walls for easel pictures which can be changed at will to handing them over to be covered with mural paintings which preclude the use of wall space for other purposes.

Changing conditions often mean that the demand for certain arts changes from time to time, and we question whether, much as we should like to see any art encouraged, there is much scope for that of the mural decorator in our life of to-day.

The Working Week in the Building Trade.

It is difficult to understand the objection of the building trades unions to the small modifications wanted in the length of working hours throughout the year, and since the recent award this appears to be the only outstanding question between masters and men. It rather suggests a blind refusal to consider natural conditions of weather and light. Is it possible that the objection is inspired by the fact that an agreement made now would involve slightly longer hours than at present, while if it had been brought up in the winter it would have involved shorter working hours? Failing an agreement now we suppose another attempt will be made to come to an agreement at a later date, but the whole controversy is one which seems to be unspeakably childish. Possibly the objection is to any arrangement which affects the total flat rates of wages because workers are unwilling to carry over a surplus to meet a deficit. In any case we should be greatly interested to learn what underlies so incomprehensible an objection.

The Worst Building.

Mr. Clennell Wilkinson, writing on "Architecture and the Schools" in the "Challenge," says that it would be interesting if the Architecture Club were to start a competition to find out what were the worst buildings in England. The same thought has often occurred to us, but the difficulties are great. We should inevitably have to eliminate in the first case all works executed by living men, which would narrow down the inquiry into one on the misdeeds of the past, while it should be our endeavour to prevent and check the misdeeds of the present. Again, the faults committed in the past were largely owing to the prevailing standards of the day, so that we may say that it needed a good man in the seventies to produce even a mediocre design. Even some of the acknowledged best work of unfortunate epochs would be hardly dealt with by many critics of to-day. It would, for example, be a little difficult to find a critic now who would do fair and even justice to the Law Courts. The Houses of Parliament would probably stand their own because, in spite of detail, Barry's work possesses a quality of size and picturesque outline which still appeals to us. But the Houses of Parliament are an exception among a great mass of building of the time, much of which was the outcome of the ability of men whose talent was wasted because of unfortunate contemporary conditions.

Mr. J. D. Player (partner in the tobacco manufacturing firm of John Player & Sons) and Mrs. Player are to build and equip a new wing to the Nottingham Children's Hospital which will double the existing accommodation, giving a total of 68 beds. The cost will be anything from £30,000 to £40,000.

Royal Institute of British Architects.

The fifteenth General Meeting (Business) of the session was held on June 11, at 9 Conduit Street, W., Mr. Paul Waterhouse, president, in the chair.

The death was announced of the following members :—

Sir Ambrose Poynter, Bart. Elected Fellow 1906.

Mr. Albert Edwin Sawday, J.P., O.B.E. Elected Associate 1882, Fellow 1891. Mr. Sawday was a past-president of the Leicester and Leicestershire Society of Architects, and represented that body on the R.I.B.A. Council from 1898–1900.

Mr. Frank Darling [*F.*], of Toronto, on May 19, at the age of 73. Mr. Darling was the most distinguished Canadian architect of his time, and was responsible for many of the most important public and commercial buildings in Canada, including the new Parliament Building at Ottawa, the Toronto General Hospital, the Canadian Pacific offices at Toronto, and many of the Toronto University Buildings. In the year 1915 Mr. Darling received from the Royal Institute of British Architects the Royal Gold Medal for the promotion of architecture. He was the only Dominion architect that ever received this honour.

Twelve candidates for Fellowship and fifty-eight for Associateship were elected.

The scrutineers appointed to count the votes for the election of the Council and Standing Committees for the Session 1923–24, reported that 1,768 envelopes were received—602 from Fellows, 1,166 from Associates.

The result of the election was as follows :—

President : Mr. John Alfred Gotch (1,061 votes) ; *not elected*—Mr. A. W. S. Cross (641 votes) ; 1,765 voting papers were received, of which 62 were invalid.

Past Presidents : Mr. J. W. Simpson and Mr. Paul Waterhouse (unopposed).

Vice-Presidents : E. Guy Dawber (1,143 votes), W. Curtis Green (1,141 votes), Major Harry Barnes (1,066 votes), H. T. Buckland (1,057 votes) ; *Vice-Presidents, not elected*—H. D. Searles-Wood (635), Sydney Perks (626), W. E. Riley (594), C. H. Heathcote (586). 1,765 voting papers were received, of which 23 were invalid.

Hon. Secretary : Mr. Arthur Keen (unopposed).

MEMBERS OF COUNCIL.

Fellows—elected—Sir J. J. Burnet (1,173), Robert Atkinson (1,157), Sir T. E. Cooper (1,151), Sir E. L. Lutyens (1,137), G. G. Scott (1,116) ; Walter Cave (1,109), H. V. Ashley (1,073), Major H. C. Corlette (1,069), Walter Tapper (1,064), Sir Banister F. Fletcher (1,057), Maurice E. Webb (1,048), T. R. Milburn (1,043), E. P. Warren (1,041), Sir A. Brumwell Thomas (1,028), Gilbert Fraser (1,009), Percy E. Thomas (1,002), John Keppie (1,000), H. M. Fletcher (983) ; *Fellows—not elected*—George Hubbard (643), C. Lovett Gill (633), C. B. Flockton (599), G. Topham Forrest (597), W. Gillbee Scott (596), W. W. Scott-Moncrieff (591), J. A. Swan (589), Max Clarke (586), W. G. Hunt (552), F. R. Hiorns (540), A. O. Collard (536), Delissa Joseph (534), Herbert Shepherd (532), H. W. Wills (531), P. M. Fraser (529), Heaton Comyn (528), Digby Lewis Solomon (528), H J. Chetwood (463), A. W. Moore (181), Charles Nicholas (176).

Associate-members of Council—elected—W. G. Newton (1,104), J. H. Worthington (1,100), M. T. Waterhouse (1,093), H. A. Welch (1,059), G. C. Lawrence (1,012), H. C. Bradshaw (1,009) ; *Associates—not elected*—W. H. Ashford (599), J. D. Scott (575), Frank Woodward (574), Joseph Seddon (547), Arthur Welford (535), L. A. Culliford (473), H. V. M. Emerson (179), Ernest Bates (168).

Representatives of Allied Societies (unopposed) : Sidney F. Harris (Northampton), Francis Jones (Manchester), W. T. Jones (Newcastle), James Lockhead (Glasgow), Eric Morley (Leeds), W. S. Skinner (Bristol), C. G. Soutar (Dundee), S. Wilkinson (York), R. G. Wilson (Aberdeen).

Representative of the Architectural Association (unopposed) : Edwin S. Hall.

Honorary Auditors (unopposed) : R. S. Ayling and C. E. Hutchinson.

When the President rose to declare that the Officers, Members of Council and Standing Committees had been duly elected, Mr. H. G. Fisher [*A.*] rose and said : "In view of an appeal having to be made to the Privy Council with regard to the conduct of this election, I wish to enter my protest as a corporate member of this Institute against the adoption of the resolution."

The President pointed out that there was no question of a resolution being put from the chair.

The President, in proposing a vote of thanks to the Scrutineers, said they had had more to do this year than ever before.

The vote was carried by acclamation.

The next meeting will be held on Monday, June 25, at 8.30 p.m., when the presentation of the Royal Gold Medal to Sir John James Burnet, A.R.A., R.S.A., will take place.

By the kind permission of H.M. Office of Works the Art Standing Committee has arranged a visit to the Pensions Building, Acton, on Saturday, June 30. Members and Licentiates desiring to take part are requested to notify the Secretary not later than Thursday, June 28.

Correspondence.

Terra-cotta and Gas-fired Kilns.

To the Editor of THE ARCHITECT.

SIR,—With regard to Messrs. Lyons' new restaurant in Coventry Street, Piccadilly Circus, it may be interesting to your readers who follow the ever-advancing treatment of building materials to learn that the terra-cotta work used there is the first instance in London of terra-cotta which has been produced in a gas kiln. In a lecture given to the Incorporated Clerk of Works Association of Great Britain a few weeks ago I pointed out the great step forward which gas-fired kilns meant for this industry. The kiln, I believe, is the invention of Mr. Shaw (managing director of Messrs. Shaws Glazed Brick Company, of Whitebirk, Darwen, who supplied the terra-cotta work to Lyons' new building), and has been very largely used in America, where kilns to the value of about £200,000 to £300,000 have been built. As a keen student of modern building materials I strongly advise anyone interested in this material to study its possibilities under the new conditions.—Yours, etc.,

S. CLOUGH,
A.R.C.A.(Arch.) Lond., M.S.A.

444 Strand, London, W.C.2.
June 4, 1923.

OLD HOLLAND. By G. G. WORNUM.

Homes of the Clergy.—I.

By Charles G. Harper.

An inquiry into the homes occupied by the clergy from the earliest times would, if it were carried through with a thoroughgoing devotion, have to take us into many curious ecclesiological byways. It would comprise, among other things, some account of how the hermits and the anchorites lived, in addition to what must be the main purpose of this article, a discussion of the dwellings chiefly of the beneficed clergy of the Church of England. We have in England not a few surviving examples of hermits' caves and anchorholds, prominent among them that cave in the cliff-like hill at Dale, in Derbyshire, where, close by the yet existing ruins of Dale Abbey, dwelt a long line of recluses; and there are curious rock dwellings in Cumberland, beside the River Eden, still known as "Wetheral Priory" or "St. Constantine's Cells." Those pilgrims, too, who throughout the Middle Ages journeyed to the shrine of St. Thomas at Canterbury made their devotions at chapels and parish churches on the way; places of worship which not infrequently supported not only the parish priest, but also one whose especial care was for those travellers. Thus there must at one time have been a house (of whatever character) belonging to the curious church of Compton, near Guildford, which is situated directly on the Pilgrims' Way; for the chancel, in two floors, had once an exterior staircase admitting to the upper floor. This would seem to have been a chapel especially designed for the use of those wayfarers, apart from the merely parochial purpose of the church itself. The architecture is late Norman.

DALE HERMITAGE.

In the old England of very long ago, before the Protestant Reformation, the celibate clergy had few domestic requirements. Their housing needs were small. Nor was the social standing of the parish priest high. At the tables of the great, when the household dined in hall at a common table, the clergyman sat "below the salt," among the retainers and menials. It is true he was accorded a courtesy title and had his name prefixed with a "Sir," which reads in olden records as though he were a knight; but that was merely conventional lip-service, and it did not of necessity give him any further consideration, as certainly it did not confer social precedence upon him. So much, we may suppose, was conceded because he was an educated man where most were not. He was one of the clergy—a phrase which, in its ultimate old original meaning, meant that he could perform clerical work. He was a clerk in holy orders: a sanctified person who (Oh, marvellous in those times when the greatest secular personages could only make shift with a cross as sign-manual!) actually could write and sign his name, and perform other feats of calligraphy.

It was not the lot of the parish priest in those far-away times to vie with those great ones of the Church, the Lord Abbots, the Abbots and Priors, who in a very real sense were nobles. He existed meanly, very often in cottages which the agricultural labourer of to-day would disdain. So we may see, all over England, in those ancient cottages which survive and yet bear the name of what they were the "old vicarage." It is true that the rectors—those who received the greater tithes—were of a better standing; but such were the typical parish priests, and such their homes of old.

Indeed, we have yet surviving some examples of parish priests' houses which actually were a portion of the parish church itself. Two extremely interesting specimens of this kind of dwelling are found at this day in Essex: the one at Great Wakering, in Essex, near Shoeburyness, the other at Laindon, in the same county. The Great Wakering example is a stone fore-building added to the western face of the tower about the middle of the fifteenth century. It is in two floors, and is entered alike from the outside of the tower and from the interior. At Laindon we find a picturesque fore-building to the west end of the church, itself a picturesque structure. Here the priest's house is also in two floors, but is of a more commodious nature, and is a construction of red brick, plaster and timber, of two rooms, comfortable and cheerful. Although the church and its addition are situated on a lofty height, in a lone meadow, away from the village, there are very many far less desirable places of residence than this. Four lattice windows look out upon miles of beautiful scenery. Here until recently lived, in succession to the olden priests, the parish clerk or sexton, and it was a curious experience of visitors to the church to hear such unusual sounds echoing through the building as the washing of domestic plates and dishes.

GREAT WAKERING CHURCH, WITH PRIEST'S HOUSE.

One of the most interesting among ancient priests' houses is the deserted little brick, plastered and timbered building in the churchyard on the north side of Itchingfield church, near Horsham. It is a very humble structure indeed, although pleasing enough with its roofing of Horsham stone slabs. The interior is now fit only for the miscellaneous rubbish stored within. Very much earlier—indeed, of Early English date—is the vicarage of West Dean, on the downs near Chichester, in Sussex. It is in a remote spot, with no village, only scattered farmsteads. It is a stone building, carefully restored of late years. In the same region is the fourteenth-century priest's house of Alfriston, latterly acquired and restored by the National Trust. It is comparable for interest with the priest's house at West Hoathly, of fifteenth-century date; a building of timber, lath and plaster, in two floors. At the Dissolution of the Monasteries this property, which had belonged to the Cluniac monastery of Lewes, became a part of the dowry of Anne of Cleves, the retired wife (so to speak) of Henry VIII. Having fallen into a dilapidated state, it was in 1908 restored by the present owner, and is now a local museum.

LAINDON CHURCH, WITH PRIEST'S HOUSE.

At Muchelney, in Somerset, beside those levels through which runs the muddy river Parrett, stands a very picturesque and ancient building which was constructed originally as the priest's house of that remote village. The name of Muchelney indicates the "muckle," or great, island; one among the many islanded places in the Sedgemoor and Athelney districts. The priest's house of Muchelney is of the fourteenth and fifteenth centuries, and yet retains a beautiful transomed Gothic window of four lights among its interesting features. A thatched roof gives it an unusually piquant and rustic effect, in contrast with its architectural quality. After the Reformation it long continued as the vicarage, but has for many years ceased to be such. It owes its preservation chiefly to the fact that, although the living is held in conjunction with that of the adjoining parish of Huish Episcopi, and although the vicar resides in that village, the old priest's house had long been rented for the use of the curate. Latterly, in order to preserve this curious old relic from any chance of alteration that might impair its archæological value, it has been purchased by the National Trust. The sum paid for it was £200, an amount that is no criterion of the actual value had the purchase been made for private and individual reasons. A curious document, dating from December, 1308, has been preserved, bearing upon the maintenance of the old-time occupants of the house: "Ordnance by Walter, Bishop of Bath and Wells, that Sir Richard Baldewyne of Mertock [Martock], vicar of the parish church of Muchelnye, and his successors the vicars, have the whole manse, house and curtilage, in which manse he now lives, and shall duly receive from the cellarer of the convent a monk's bread of the weight of sixty shillings, and two gallons of ale of the best conventual ale, and from the kitchen a dish of fresh meat on Sundays and on Tuesdays, and a dish of eggs or fish on the other days of the week, at the cook's pleasure, or from the sacristan £4 yearly in support of the charges, also all the money offered on Sundays at Muchelnye and in the chapel of Draytone thereto annexed, also all money offered at burials."

INTERIOR OF THE PRIEST'S HOUSE, LAINDON.

THE PRIEST'S HOUSE, ITCHINGFIELD.

A very humble brick and timber-framed cottage stands at Buckland, near Teynham, in Kent. It was once the vicarage, but is now occupied by a farm labourer, and stands on the verge of hop gardens. Close at hand are the scanty ruins of the vanished church, whose one bell has found a home in the adjacent farmhouse. A better and a more picturesque old vicarage that long since ceased to be such is what is at the present time the "Old House at Home" inn at Havant, adjoining the church. An ancient stone building at the corner of the churchyard of Prince's Risborough was formerly the vicarage of that place. It is easily the most picturesque building there, not so much, perhaps, in the matter of form and outline as in colour and texture of the mellowed stones and mossy roof. A further specimen of an old vicarage that has become an inn is that of the fine brick and timbered Pounds Bridge inn, near Penshurst. This was built by one William Darkenall, vicar of Penshurst, and yet bears his initials, "W.D," and the year of his age, "69." He died three years later—July 12, 1596.

THE PRIEST'S HOUSE, MUCHELNEY.

One of the most intriguing among ancient vicarages is the little magpie black-and-white former vicarage of Prestbury, in Cheshire. Delightful in itself, it seems even more so by contrast with its commonplace and unimaginative red-brick neighbours. This richly timbered house belongs to early in the fifteenth century. From the balcony over the doorway the deprived minister of that time of the Cromwell usurpation, when the clergy were largely cast out of their livings, preached those sermons which he was not permitted to deliver from the pulpit. A new vicarage was built in 1708, and yet a newer in 1894. In that same county of Cheshire, where old black-and-white is so plentiful, the beautiful rectory of Gawsworth stands prominently forth, still the rector's home; unlike the poor old rectory-house of Holy Trinity, Dorchester, which is now nothing but a workshop of an ironmonger's business in the main street of that Dorsetshire capital. Yet the old place is of some particular interest, for there lived for forty-two years the Rev. John White, one of the founders of the New England colony of Massachusetts. He came to Dorchester, aged 31, in 1606. In 1624 he took a very active part in sending colonists to Massachusetts Bay. In 1642 his rectory was plundered by Prince Rupert's horse. He died in 1649.

GAWSWORTH RECTORY.

Coxwold, that pretty Yorkshire village in the region of Easingwold, has an old vicarage which is interesting alike in itself and for its associations. It was for a little while the home of that singular character, the Rev. Laurence Sterne, who styled it "Shandy Hall." The word "shandy" means in the Yorkshire dialect "crazy." Sterne became vicar of Coxwold in 1760, and resided there at intervals until his death in London in 1768. A tablet over the entrance declares that here he wrote "Tristram Shandy" and "A Sentimental Journey"; but it was the concluding volume only of the first named that actually was written here. Sterne was not precisely the type of clergyman who would be acceptable to the conscience of the present age, nor, for that matter, were many among his contemporaries. He was merely typical of his time.

POUNDS BRIDGE.

The so-called "oldest rectory in England" ceased very long ago to be a parsonage, and is now a curiosity shop and emporium (excellently impressive, that blest word "emporium") of old furniture in Cheesehill Street, Winchester. It was once the rectory-house of the adjacent church of St. Peter Cheesehill, and is a brick, plaster and timber building of two immense gables and heavy barge-boards, dating from about 1450.

In the Shakespeare country there is no old house more picturesque than the fifteenth-century timbered rectory of Clifford Chambers, near Stratford-on-Avon. The village of Clifford takes the second part of its name from the manor having once been the property of the house-stewards, or "chamberers," of the great Abbey of St. Peter at Gloucester, and is itself a delightful nook of Old England. The old rectory stands beautifully grouped with the church, and is surrounded by farm buildings. It was apparently in the year of Shakespeare's birth occupied as a farm. The plague was then raging in the town of Stratford. In this old house in that year was living a mysterious "John Shakespeare." We may well use in this place the word "mysterious," because nothing more is known of him than this residence here in that year. The question naturally arises: Was not this John Shakespeare identical with he of the same name who was father of the greatest English poet and dramatist? Was William Shakespeare, in fact, born in this house and not in "The Birthplace" in Henley Street, Stratford-on-Avon, where commonly his father lived and carried on his business? It is, indeed, extremely likely that John Shakespeare did, like a good, prudent man, remove himself and his family temporarily from the town in 1564, to escape from danger of the plague, either before or immediately after his son was born on that famous St. George's Day; and that, therefore, the probability is that, in all these generations, crowds of sight-seers and gapers have been gaping and sight-seeing at the wrong address. There has never been any actual documentary fact recording where Shakespeare was born; and that "The Birthplace" was indeed his birthplace is no more than an assumption.

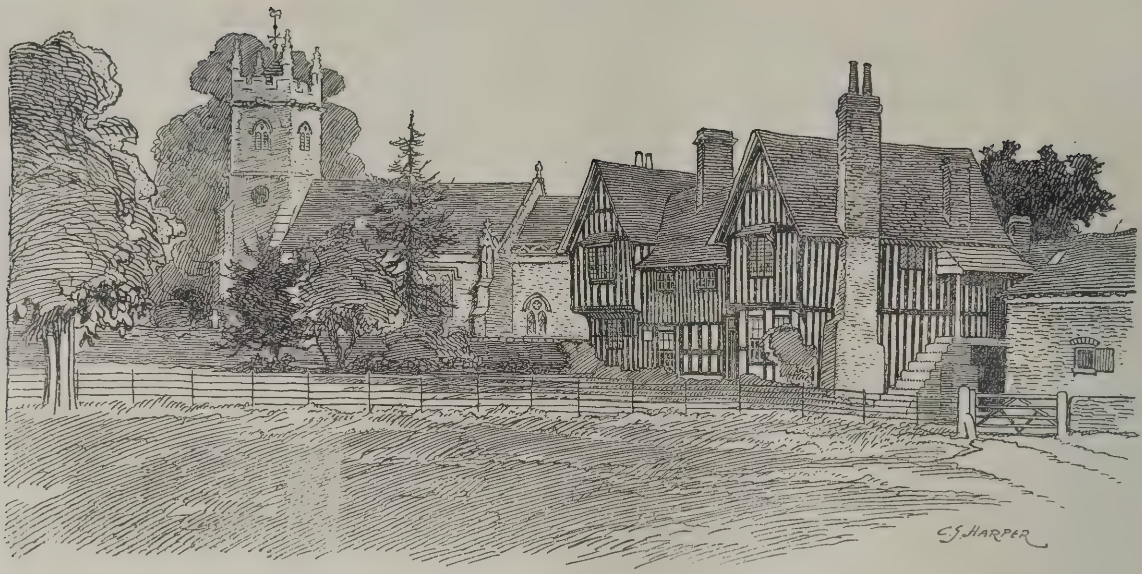
COXWOLD VICARAGE.

Indeed, there is extremely much assumption in everything relating to Shakespeare, and every man who has the will to do it may make the poet of all time his champion, whatever may be his views. Stratford-on-Avon, the greatest Shakespearean shrine, where such things should not be, has been made a kind of early home of temperance propaganda, because Shakespeare, in "Timon of Athens," makes one of his characters declare "Honest water, which ne'er left man i' th' mire." That may be seen boldly inscribed on the "American Memorial Fountain" in Rother Street, ornately Gothic, set up so long ago as 1887 by that wealthy Shakespearean collector, the late George W. Childs, proprietor of the "Philadelphia Ledger."

But to quote Shakespeare from a play which a good many critics declare to be inferior, and wrongly ascribed to him, is dangerous. It is even more risky to quote him as an advocate for water; because he much more authentically wrote "A quart of ale is a dish for a king."

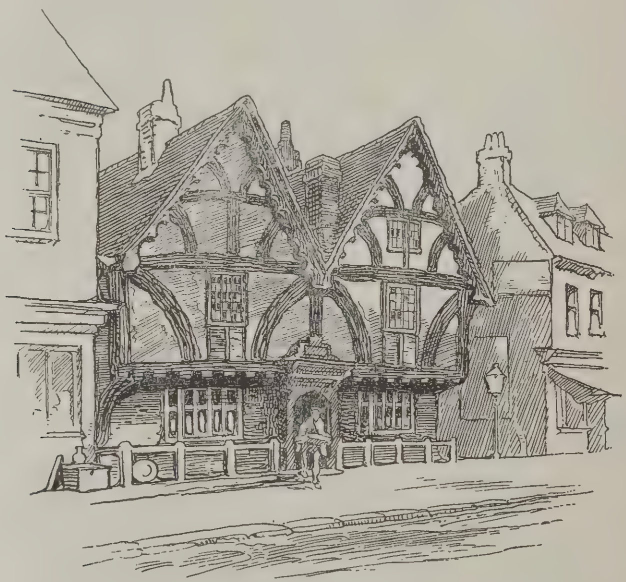
However, if those persistent old legends that cling about Stratford-on-Avon and its surrounding villages have any basis in them of truth, Shakespeare, come home again from London and become member of one of the drinking clubs that met and tried to drink one another down, knew well enough the value of ale and the better value (if you wanted to get home) of water.

Time may yet, unlikely though it seems, produce some



THE OLD RECTORY, CLIFFORD CHAMBERS. (Probably the real Birthplace of Shakespeare.)

documentary evidence establishing the old Rectory of Clifford Chambers as the true birthplace of Shakespeare; but meanwhile it is merely an extremely interesting speculation which ought readily to take visitors to Stratford-on-Avon out to the pretty and very little village, where the old black-timbered building will be found, grouping ideally with the church, beside the pleasant country road.



THE OLD RECTORY, ST. PETER CHEESEHILL, WINCHESTER.

Indeed, there are few more charming nooks than this in Shakespeare's Warwickshire; the true England, as some say, and certainly in many ways remarkably unchanged, even though Birmingham and all its industrial implications be so close at hand.

(To be continued.)

Sentence of twelve months' imprisonment in the second division was passed at the Old Bailey, on the 5th inst., on Adolphus Parry Fielder, 41, who was convicted of obtaining money by false pretences. It was shown that the prisoner, who had swindled persons in Birmingham and Scotland of sums amounting to £950, called himself an architect, claiming to be commissioned to build various theatres, picture halls, and similar resorts, and securing advances of money on his supposed fees. He was not a member, however, of any architectural association, and there were no facts to substantiate his statement regarding fees. It was stated that Fielder had been bankrupt three times. Some of the people he had victimised were absolutely ruined.

Architects' and Surveyors' Approved Society.

The new Committee of Management of the Architects' and Surveyors' Approved Society met on Tuesday, May 29, at the new office, 36 Victoria Street, Westminster.

It was decided in view of the fact that substantial assistance had been given to the Society by the R.I.B.A., the Surveyors' Institution, the Architectural Association, and the Society of Architects, the Allied Societies should be appealed to directly for the support of their members, that every member of the staff should be enrolled as a member of the Approved Society.

That it is the first duty of employers to see their employees are insured and to the Professions generally to support the Society, whose first aim is to help the junior members of the profession.

Attention is called to the fact that the Society, in addition to the ordinary benefits, is able to give members special benefits—hospital, dental, optical, surgical aid, and convalescent home treatment—and one of the first acts of the new Committee was to grant a member £12 (twelve pounds) to enable him to follow the doctor's advice and take convalescent change in the country.

Competition News.

The Student Welfare Committee of Glasgow University invite competitive designs (limited to architects having an office in and practising within the municipal boundaries of the City of Glasgow) for a pavilion to be erected on the University Athletic Ground at Westerlands, Anniesland, at a cost of £10,000. The assessor appointed is Mr. Alexander N. Paterson, A.R.S.A. Copies of the conditions may be obtained on application to the Honorary Secretary, Student Welfare Committee, The University, Glasgow.

The Manchester War Memorial Committee have appointed Mr. Percy S. Worthington, M.A., Litt.D., F.R.I.B.A., of Manchester, to act as assessor in the competition in connection with the erection of the war memorial in St. Peter's Square. Advertisements are to be issued inviting designs for the memorial, and four premiums, ranging from 200 to 60 guineas, are to be offered. The architect ultimately appointed to carry out the work will be paid in accordance with the scheduled charges of the Royal Institute of British Architects. The memorial is to occupy approximately the site now held by the cross. When the memorial displaces the cross St. Peter's Church will be commemorated by a tablet.

In consequence of the fall in building costs and building materials, Sir Robert Lorimer, A.R.S.A., F.R.I.B.A., Edinburgh, who is undertaking the work of restoring the ancient church of St. John's, Perth, has now decided to invite contractors to quote for the whole work of restoring the church instead of only part.

The Education Committee of the Middlesex County Council, for which Mr. H. G. Crothall, F.R.I.B.A., is the architect, have recommended the acceptance of a tender by H. Knight and Son, Tottenham, amounting to £14,910, for the erection of a new secondary school in Uppington Road, Willesden; also that of a tender by Ferris Bros., Acton (£7,463), for additions at Spring Grove House, Isleworth, and that of W. Lawrence and Son, Ltd., 19 Finsbury Square, E.C. (£6,345), for additions at Southgate House, High Street, Southgate.

Suggested Regulations Regarding Density, Proportion of Curtilage to be Built upon, and Height of Buildings.*

The principle of regulating these matters is already established, and the task now before us is to arrive at some definite code which will promote the health, safety, and general welfare of urban communities without infringing unreasonably upon the rights of the private owner.

The criterion that might well be applied to any exercise of Town Planning powers is, to quote from the report of the New York Heights of Buildings Commission, "that . . . it should commend itself to the sober judgment as necessary, appropriate and reasonable, the infringement of private right being not disproportionate to the real public gain."

In considering suggestions for the control of buildings in the directions under notice, the objects which it is desired to achieve should be clearly understood. These may be grouped under the following main heads :—

(*a*) *Public Health.*—The necessity of securing adequate sunlight and fresh air in and about buildings and the prevention of overcrowding.

(*b*) *Public Safety.*—Protection of property from fire and the occupants of buildings from injury due to fire or panic.

(*c*) *Public Welfare.*—Securing the comfort and convenience of the occupants of dwellings, offices, and factories with regard to light, air, and space.

(*d*) *Public Economy.*—Providing for the conditions which conduce to efficiency in the work of town dwellers, in the administration of public services, and in the management of traffic ; the provision in connection with dwellings of sufficient land to permit the cultivation of vegetables and the keeping of poultry ; and the safeguarding of existing and future property values by preventing an existing building losing its requisite amount of light and air, and generally maintaining the character of a district.

(*e*) *Æsthetic Considerations* in connection with the height of buildings in relation to street widths, and with the relative height of different types of buildings necessary to ensure a reasonable correlation between the physical prominence of a building and the importance of its civic function.

The relative importance of these different objectives will vary both with the nature of the restriction and the character and situation of the buildings to which it will apply. This is expecially true as regards the limitation of density and of the proportion of curtilage which may be built on—the regulations governing which clearly needing to differentiate both between different kinds of buildings and between the same kinds of buildings placed in different circumstances. But it applies with almost equal force to limitations of height in which the standards applicable to a residential district are necessarily different from those suitable to the business centre of the town. Hence, any regulations are closely bound up with the general question of Zoning, and in order to correlate the two subjects we must first postulate some system of character zones, and then consider the restriction of the height and density of buildings and the proportion of curtilage occupied by them in relation to such zones. In this procedure we are, however, handicapped by the fact that there is, as yet, in this country, no system of character zoning which has been thoroughly tested in actual practice. It therefore becomes necessary to adopt some system which, though virtually untried, is at least representative of the consensus of opinion at the present time. For this purpose we cannot do better than take the system recommended as a guide to Local Authorities by the Ministry of Health in their issue of Model Clauses for use in the preparation of Town Planning Schemes.

The principle upon which it is suggested that character zones should be established is that each district should be regulated according to the predominant use to which the buildings in it are now put or are likely to be put in the future. In each zone, buildings other than those of the predominating character *may* be erected with the consent of the Council, and in some of them certain buildings are definitely excluded. In the table of Character Zones recommended in the Model Clauses there are five zones. The first is predominantly residential, with noxious industries definitely excluded and other buildings permitted only with the consent of the Council ; the second is devoted primarily to shops and business premises—industrial buildings of all sorts being excluded, and other buildings being allowed only by consent ; the third is principally industrial—other buildings and those used for noxious industries requiring special permission ; the fourth is virtually unrestricted, permission being required only in the case of noxious industries ; while the fifth is intended to apply to land not likely to be developed in the near future with regard to which it is not possible to forecast the trend of development with sufficient certainty to prescribe the predominant use with safety. In this case a modified form of control is provided by making the erection of all buildings, other than those of a residential character, subject to the Council's consent.

In view of the very elastic nature of the restrictions in all these zones, the power reserved by the Council of issuing supplementary zoning orders either tightening up or relaxing the restrictions in any zone is very necessary if the stability of values, which it is part of the purpose of Zoning to secure, is actually to be achieved. For unless the Council is a singularly enlightened body and is immune from the wiles of the axe-grinder, it is readily conceivable that the predominant character of any zone may soon be lost in a welter of miscellaneous buildings erected by "permission," a condition no better than at present exists. Moreover, however powerful and conscientious a Council may be, there is no guarantee that its policy will be upheld by its successors, and continuity of policy—subject, of course, to a proper adaptability to changing circumstances—is essential to public confidence in the value of a Town Planning Scheme.

The need for a certain degree of elasticity and the dangers attending the imposition of cast-iron regulations are sufficiently obvious to account for the evident reluctance of the Ministry to allow Local Authorities to regulate the character of their zones in a decisive manner. But while recognising both the difficulties and dangers which are thus avoided, one cannot help feeling that the nature of the case demands a greater degree of positiveness.

THE REGULATION OF DENSITY.

Until the passing of the Town Planning Acts, the regulation of the density of buildings was entirely governed by the restrictions imposed with regard to the proportion of curtilage which the building might occupy, and for buildings other than those of residential character this method, supplemented by the regulations specifying the heights of buildings in relation to their distance apart, is probably still the most effective. Where, however, such buildings are permitted to be erected in residential zones, it becomes necessary to assign to them an equivalent value in building units in order to safeguard the general density restriction.

It is significant that the Ministry of Health recommends this principle in the Model Clauses, but offers no guidance as to the method determining the number of building units which should be assigned to the various types of buildings. Assuming, then, that a single-family dwelling-house is the accepted building unit, the lecturer suggested that in the case of flats or flatted dwellings every two flats shall be reckoned as equivalent to one building unit ; in the case of hotels each five bedrooms shall constitute one building unit ; and in the case of shops and business premises used also as dwellings, that they be treated in the same manner as flats. Non-residential buildings of all kinds should be eliminated from density calculations by deducting the area of the plot upon which they are placed from the area of the land unit in question. In so far as they are permitted in residential zones at all, they will be subject to such regulations with regard to height and proportion of curtilage as will prevent their interference with the prescribed density.

The three principal factors in the determination of a suitable density for residential areas are :—

(*a*) The need for ensuring healthy conditions, *i.e.*, adequate sunlight and fresh air.

(*b*) The need for providing every home with the amenity of reasonably spacious surroundings and the possession of a private garden ; and

(*c*) The economic desirability of affording to each householder the opportunity of cultivating his own vegetables, keeping fowls, etc.

The first of these requirements will be satisfied by the regulation in regard to the height of buildings and the proportion of curtilage which they may occupy ; but the second and third, inasmuch as they go beyond the minimum requirements for health alone, are the determining considerations.

As the result of exhaustive investigation, with which the name of Mr. Raymond Unwin will always be associated, the conclusion has been reached that a plot having an area of one-twelfth of an acre is the minimum area of land which by careful cultivation can be made to produce an adequate supply of vegetables for a normal family. Hence, a density of twelve houses to the acre must be considered, from this point of view, to be the minimum density which should generally be permitted, and as such a limitation will satisfy the condition of permitting a reasonable degree of amenity in the surroundings of the houses, it may be accepted as a suitable standard.

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* Abstract of a paper by Mr. F. Longstreth Thompson, B.Sc., A.M.Inst.C.E. (Member), read at the annual general meeting of the Town Planning Institute held on June 8.

The accompanying table gives a comparison between the cost of developing a plot of 10 acres at densities of 12 and 20 to the acre respectively :—

Comparative Statistics in regard to the Development of Two Plots of 10 acres at Densities of 12 and 20–4 Houses to the Acre respectively.

Total area of site	10 acres	10 acres
Area coupled by roads	1·35 ,,	2·59 ,,
Net area of site	8·65 ,,	7·41 ,,
Number of houses	120	204
Gross density per acre	12	20·4
Net density	13·87	27·52
Average net area of house plot ..	350 sq. yds.	176 sq. yds.
Average net building frontage per house	23·1 feet	23·1 feet
Average road frontage per house : Total	26·78 ,,	30·71 ,,
36 feet road	22·65 ,,	30·71 ,,
Light road	4·13 ,,	—
Cost of roads and sewers per house ..	£43 5 0	£52 5 0
36 feet road at £14 14s. per foot frontage	38 10 0	52 5 0
Light road at £1 3s. per foot frontage ..	4 15 0	—
Cost of land per house at £180 per acre	15 0 0	8 16 6
Cost of land and development per house	58 5 0	61 1 6
Cost of house plot per square yard net	0 3 6⅓	0 6 11¼

It will be noted that owing to the saving in loss of road frontage by a reduction in the number of street corners, and the permissible use of light roads rendered possible in development at the lower density, the development charges are £9 less per house than in the case of the higher density, while the total cost of land and development per house is still slightly in favour of the former. This remains true, under normal conditions and at the ratio assumed for road and sewer construction, until the difference in the cost of the undeveloped plot amounts to £9, which occurs when the value of the land per acre reaches £270. At this point the total cost of land and development is the same for both densities, and where the cost of undeveloped land is less than £270 per acre it is possible to develop more cheaply at a lower than at a higher density.

PROPORTION OF CURTILAGE TO BE OCCUPIED BY BUILDINGS.

Where the allowable building density is in units of indefinite size—such as a single-family dwelling-house—it is necessary to supplement the density regulations by prescribing the proportion of its curtilage which each building may be allowed to occupy. This may be done either (1) in relation to the height of the building, (2) by prescribing a minimum space which must be kept free from buildings, or (3) as a proportion of the total curtilage. Of these methods the first is the most logical and the latter the most practicable, because if the height of buildings is restricted on the principle of a height-distance apart ratio, the proportion of curtilage which the building can occupy is automatically regulated, except at corner sites and other awkward places, where a limit to the proportion of curtilage occupied is the only feasible plan.

This is the method which is adopted in the Model Clauses. It is applied to three separate kinds of buildings, namely, dwelling-houses proper, residential and other buildings in which dwelling accommodation is provided, and non-residential buildings ; and it differentiates between buildings which are of more than one storey or more than 30 feet in height. The restrictions in the former class are less onerous than in the latter, and in view of the popularity of the bungalow, and more especially of the growing tendency towards single-storey schools and factories, this distinction is fully justified.

In considering the actual proportions recommended, which for the three types of buildings respectively are one-third, one-half, and three-quarters in the first category, and one-quarter, one-third, and two-thirds in the second category, it must be borne in mind that, as has just been mentioned, these restrictions will probably only come into operation in the case of corner plots or under circumstances where it is difficult to insist on standards of general application. Hence, although they allow a much greater utilisation of the curtilage than would normally be desirable either from the point of view of the public or the plot owner, they make reasonable provision for the special cases to which they will mainly apply.

HEIGHT OF BUILDINGS.

The Model Clause dealing with the limitation of height of buildings has the great merit of simplicity. It provides for a maximum height, which is tentatively put at 70 feet, and a maximum vertical angle drawn from the centre of the street, which varies from 45 deg. in the case of purely residential roads to 56 deg. in the case of streets used for general traffic purposes. Dwelling-houses are limited to two storeys, exclusive of basements and rooms wholly or partly in the roof.

But while there is undoubtedly a great advantage from the administrative point of view in reducing regulations to their simplest form, it is at least doubtful whether the provision suggested in the Model Clauses takes sufficient account of the objects which a limitation of the height of buildings is designed to achieve.

There is very little data upon which to base any conclusions as to the conditions necessary to adequate ventilation of streets and courts. But if information is lacking upon this factor of the problem, the incidence of sunlight in streets is a subject which is susceptible of more accurate determination.

In adopting a criterion with regard to the measure of direct sunlight which it is desirable to secure in the rooms of occupied buildings, it must be remembered that while the thorough disinfection of every room by the sun's rays is the ideal condition, it is in the nature of walls to cast shadows, and that not only is it impossible in this latitude for rooms facing north to receive any sunlight except for a short period at midsummer, but that even in rooms facing south the windows allow only a comparatively small proportion of their volume to be subject to the direct rays of the sun at any one time, while the upper part of the room farthest from the windows can never be reached by the sun at all. There are, furthermore, two other considerations which should be taken into account, namely, the seasonal variation in the height of the sun, and the proportion of the possible hours of sunshine which our cloudy skies actually allow us to enjoy.

When the distance between the buildings is small, a small increase of width results in a large increase of sunlight ; but when the street is wide, even considerable alterations in the width have very little effect upon the hours of sunlight. This peculiarity is most noticeable in streets running approximately east and west. In streets approaching a north and south direction these points are not so clearly marked, but there are, nevertheless, optimum width-height ratios below which the hours of sunlight decrease very rapidly and above which the increase is too small to be of much value.

These critical ratios are more or less evident at each season of the year for streets of whatever orientation. They are greater during spring, summer, and autumn for streets running north and south than for those running east and west, but in winter the position is reversed. In all cases it is found that the measure of sunshine which is possible in any particular street depends upon whether the ratio of its width to height exceeds or falls short of the critical ratio at the time of the equinoxes. This is particularly evident in the case of streets running in a direction approximating to that of east and west where a width-height ratio of 1·33 to 1 is sufficient to secure 80 per cent. of the possible number of hours of sunlight in the street in spring and autumn, while a ratio of 4·78 to 1 is necessary to secure the same percentage in midwinter. In streets running in a direction approaching to north and south the width-height ratio required to obtain 80 per cent. of the possible sunlight is approximately 2·8 both at midwinter and the equinoxes.

It is suggested that the heights of buildings should be regulated by means of a limiting ratio between their width apart (both back and front) and their height, determined with reference to the conditions prevailing at the equinox. This ratio would vary in each town according to its latitude and according to the orientation of the street, and would depend upon whether the criterion adopted in fixing the ratio were to be a definite percentage of the total hours of possible sunshine, or a definite number of such hours. If, however, the percentage were to be fixed at 80 per cent., or the hours of sunlight at the equinoxes at 8, the resultant ratios would be, to all intents and purposes, the same, and upon this basis it would be reasonable to stipulate that the height of buildings situated on streets having a direction lying between the limits of 45 deg. east or west of the meridian should be not greater than one-third of the distance between them, measured either at back or front ; and that the height of buildings situated on streets having a direction lying between the limits of 45 deg. north or south of east and west should not be greater than one-half of the distance separating them either back or front.

In order that such a regulation of height may be effective, it is just as necessary that the distance between the backs of buildings should be subject to the same restrictions as that between the fronts, for otherwise houses facing in a northerly direction might easily be deprived of the only sunlight they enjoy, namely, that shining on their backs. Hence, in order to secure a reasonable uniformity of height, minimum building lines will have to be laid down on both sides of the buildings. If, for example, building lines are laid down 70 feet apart across adjacent parallel streets, and the permissible height of the houses fronting such streets is calculated upon this basis, *e.g.*, 23 feet, then a distance of at least 70 feet must intervene between the backs of such houses. At a density of anything approaching 12 to the acre this distance would usually be considerably exceeded, while so far as the height restriction is concerned, the allowable limit—at its lowest—viz. one-third of the distance between buildings—would permit the erection of ordinary two-storey dwelling-houses at a distance of 70 feet apart—the dimension laid down in the Government Housing Scheme.

For residential areas the limitation of height suggested in the Model Clauses is that no building shall project above a line drawn at an angle of 45 deg. from the centre of the street. This is precisely the limit arrived at by the foregoing arguments in the case of streets running approximately east and west, but is greater than that suggested for streets running in a north and south direction, which works out to an angle of about 33 deg. from the centre of the street.

For other than purely residential zones, the Model Clauses suggest an angle of 56 deg. with a maximum height of 70 feet, though this does not apply to industrial buildings erected in either the Special Business or Special Industrial Zones. Before discussing the actual restriction suggested, it is necessary to make two preliminary observations, namely, first, that while there may be arguments for relaxing somewhat the general height restrictions in the case of industrial buildings, there appears to be no justification for taking off the restriction altogether in certain zones; and, secondly, that industrial buildings should receive preferential treatment only in zones where the predominant character is industrial, and not, for example, in the Special Business Zone, as suggested in the Model Clauses.

For general application in non-residential zones a limiting angle of 56 deg. from the centre of the street—which is equivalent to restricting the heights of building to three-quarters of the width between them—is not unreasonable. It compares very favourably with the regulations in most American cities, and is better in every way than the 1 to 1 limit laid down by the London Building Acts, which encourages streets having a square cross section—æsthetically a most wearisome and unsatisfactory form. The proposed limit, however, should not extend to the undetermined zone, which, until there is some clear indication to the contrary, should be regarded as of a residential character and be governed by the height restrictions applying to zones of that nature. Furthermore, the limiting angle should be applied both to the backs and fronts of the buildings, as in the previous case.

So far as industrial buildings are concerned, the modern tendency is wholly in the direction of confining factory premises to a single floor wherever this is possible. Hence, the needs of industry will not usually be met in the future by the relaxation of height restrictions, but by the reservation of ample areas of cheap land for industrial purposes. It would seem, therefore, to be as unnecessary as it is undesirable to allow factory buildings to exceed the height restrictions generally applicable to non-residential zones.

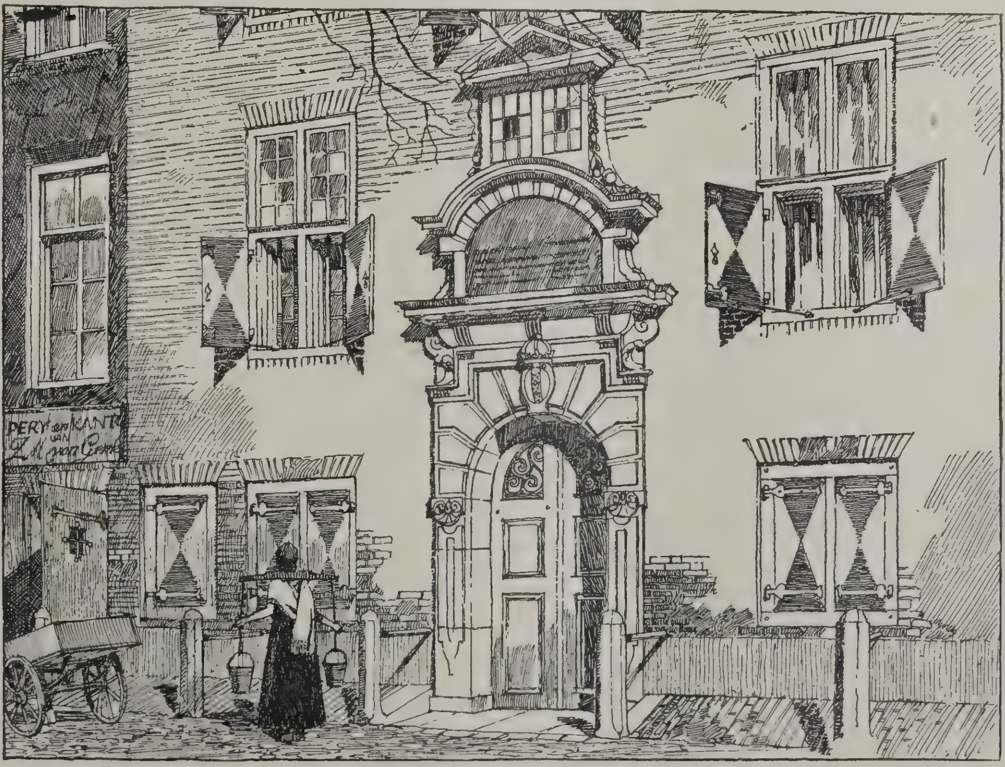
Theoretically, the regulation of height by means of a limiting angle renders an absolute height limit unnecessary, but in practice such a limit is desirable, inasmuch as there are certain classes of buildings, of a public or semi-public character, which should be exempted from the general restriction, but which should not be entirely free from control. Such buildings as churches, town halls, museums, libraries and theatres are entitled to a prominence on account of their social and civic importance, which cannot be guaranteed unless they receive special treatment in the matter of height restriction. For this class of buildings the author suggested a maximum limit of 100 feet, exclusive of spires and towers, and in order to provide the opportunity for differentiating them from other buildings, he suggested that the latter be restricted to a height of 70 feet, as recommended in the Model Clauses.

The author summarised in the following table the suggestions with regard to the regulation of the density, the proportion of curtilage to be built on, and height of buildings which have been made in the course of the paper.

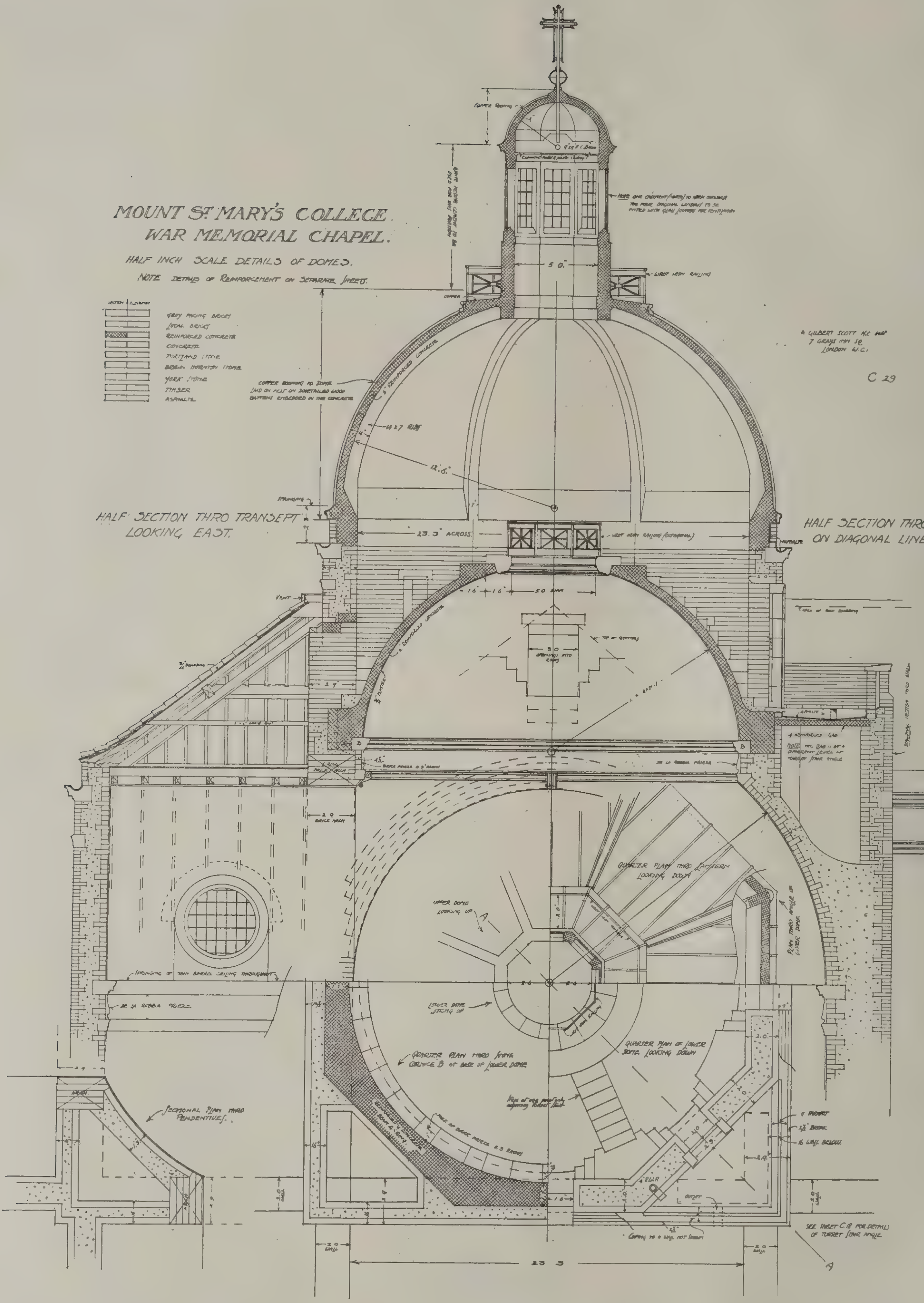
SUMMARY OF PROPOSALS.

Character of Zone	Average Density to the Acre	Maximum Heights of Buildings
1. Residential.	(*a*) 12 (*b*) 8 (*c*) 6	(*a*) For streets having a direction lying within an angle of 45° E. or W. of North: one-third of the least distance between the buildings measured either back or front. (*b*) For streets having a direction within an angle of 45° N. or S. of East: half of the least distance between the buildings measured either back or front.
2. Special Business. 3. Special Industrial. 4. General Industrial and Business.	Regulated by proportion of curtilage and height restrictions.	Three-quarters of the least distance between the buildings measured either back or front, subject to a maximum height of 70 feet.
5. Undetermined (primarily residential)	12	The same restrictions as in the case of residential zones.
Exceptions.	—	Public Buildings as defined in the Model Clauses to be subject only to a maximum height limit 100 feet exclusive of towers, spires, etc.

Character of Buildings.	Proportion of Curtilage which may be occupied by buildings.	
	Class I. Single storey buildings not exceeding 30 feet in height	Class II. Buildings of more than one storey or exceeding 30 feet in height
Dwelling Houses	$\frac{1}{3}$	$\frac{1}{4}$
Residential Buildings, Institutions, Schools and Shops in which dwelling accommodation is provided	$\frac{1}{2}$	$\frac{1}{3}$
Other Buildings	$\frac{3}{4}$	$\frac{2}{3}$



OLD HOLLAND. By G. G. Wornum.

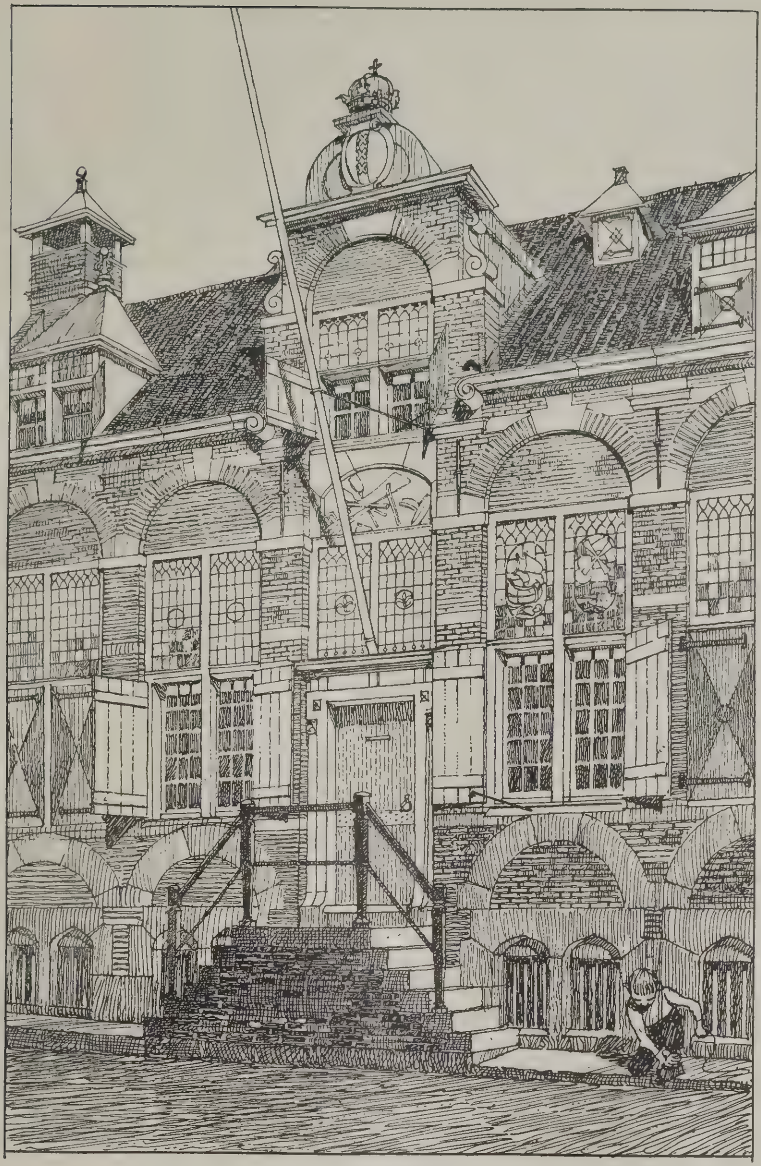

MOUNT ST. MARY'S COLLEGE.
WAR MEMORIAL CHAPEL.
HALF INCH SCALE DETAILS OF DOMES.
NOTE DETAILS OF REINFORCEMENT ON SEPARATE SHEETS.
GREY FACING BRICKS
LOCAL BRICKS
REINFORCED CONCRETE
CONCRETE
PORTLAND STONE
BROWN HORNTON STONE
YORK STONE
TIMBER
ASPHALTE
COPPER ROOFING TO DOME LAID ON ROLLS ON DOVETAILED WOOD BATTENS EMBEDDED IN THE CONCRETE
5" REINFORCED CONCRETE
14 x 7 RIBS
12' 6"
5' 0"
23' 3" ACROSS
HALF SECTION THRO TRANSEPT LOOKING EAST.
HALF SECTION THRO PENDENTIVE ON DIAGONAL LINE A.–A
A GILBERT SCOTT M.C. ARCH
7 GRAYS INN SQ
LONDON W.C.1
C 29
QUARTER PLAN THRO LANTERN LOOKING DOWN
UPPER DOME LOOKING UP
LOWER DOME LOOKING UP
QUARTER PLAN THRO STONE CORNICE B AT BASE OF LOWER DOME
QUARTER PLAN OF LOWER DOME LOOKING DOWN
SECTIONAL PLAN THRO PENDENTIVES
DE LA ROBBIA FRIEZE
23' 3"
A

Reinforced concrete has been adopted entirely for the construction of the above dome, and the illustration shows how well adapted this material is for such work. Architects are concerned in providing a construction which will prove permanent and which will not entail constant upkeep. Reinforced concrete has made possible forms of construction which would frequently have to be eliminated for reasons of cost.

The dome is carried on reinforced conçrete beams, and the pendentives, although they are not called upon to bear any load, are also constructed in the same material, thus conveying to one a sense of strength and stability.

The concrete in the outside face of the lantern will be left free from the centering and the decorative cornices will be cast in moulds. The position of the lantern is such that it does not need much detail.

The reinforced concrete work is being carried out on the Kahn System to the designs of the Trussed Concrete Steel Co., Ltd., 22, Cranley Gardens, South Kensington, S.W.7.



OLD HOLLAND. By G. G. Wornum.

"The Architect" Fifty Years Ago.

June 14, 1873.

The Tuileries.

The Direction of Public Works has decided that the restoration of the Tuileries shall be divided into three portions. The first is to include the Pavilion of Flora, and that portion which adjoins it on the river side; for this work, which is entrusted to M. Pascal, a million of francs is set apart in the Budget of the present year. The second comprises the Pavilion Marsan and that portion of the structure adjoining on the Rue de Rivoli, towards which the sum of 750,000 francs is to be spent this year; M. Leclerc is inspector in this case. The third portion includes the Pavilion of the *Bibliothèque* and its dependencies, M. Guerhardt, inspector, and for this the sum of 600,000 francs is devoted. The whole is under the superior direction of M. Lefuel, the architect of the palace. The clearing of the site of the Pavilion Marsan is now in hand. The demolition and removal of the ruins of the front of the palace, which connects the two pavilions already mentioned, including the original central structure by Philibert Delorme, are to be put up to contract immediately, but tenders are expected to be few on account of the bad state of the materials. It appears that nothing has been determined respecting the reerection of the main façade of the old palace, but it is scarcely likely that a conservative government will adopt the plan proposed some time since of throwing the whole of the Place de Caroussel open to the Gardens and the Place de la Concorde. Nor is anything said about the appropriation of the Salle des Etats and the adjoining portions of the river wing to the purposes of the museum as decided by the late Government.

Forthcoming Events.

Friday, June 15.—British Architects' Conference. Motor Drive to Dryburgh, Melrose and Peebles, 9.15 a.m. Banquet at the Freemasons' Hall, 7.30 p.m.

Royal Society of Arts. Meeting at John Street, Adelphi. Paper by Sir J. H. Marshall, C.I.E., M.A., Litt.D., F.S.A., Director-General of Archæology in India, entitled "The Influence of Race on Early Indian Art." 4.30 p.m.

Institution of Municipal and County Engineers. East Midland District Meeting at Skegness (two days).

Institution of Sanitary Engineers. General Meeting and Luncheon at the Holborn Restaurant, 11.30 a.m. Visit to London County Hall, 3 p.m.

Tuesday, June 19.—Society for the Promotion of Roman Studies. Annual General Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Paper by Mr. G. H. Stevenson, M.A., entitled "Some Reflections on the Teaching of Roman History." 4.30 p.m.

Institution of Heating and Ventilating Engineers. Summer Meeting at the Grand Hotel, Folkestone. 9.30 a.m.

Friday, June 22.—Institution of Municipal and County Engineers. Combined Holborn and St. Pancras meeting of the Metropolitan District at Connaught Rooms, Great Queen Street. 12.30 p.m.

Mr. Henry E. Farmer, F.R.I.B.A., Housing Commissioner, 1918-1921 (of Hickton, Farmer and Farmer, architects and quantity surveyors), has just removed to 57 Colmore Row, Birmingham. His telephone is Central 7274.

Merits of Home-Grown Timber.

The strength and durability of home-grown timber and its title to more extensive use by Government departments, municipalities, builders and industrial undertakings generally in the national interest, were urged at a forestry conference held at the Surveyors' Institution, Westminster, under the chairmanship of Lord Clinton. The conference was convened by the Surveyors' Institution and the Land Agents' Society, and representatives of the Central Landowners' Association, the Royal English Arboricultural Society and the English Forestry Association also attended.

Mr. M. C. Duchesne said it must be obvious that a proper demand for home-grown timber was the very foundation of forestry in our woodlands. It was important first to appreciate the fact that with our enormous consumption of wood in every form to-day the home-grown supplies could meet the demand of probably not much more than 10 per cent. of the total. Unfortunately, probably at least 75 per cent. of the total consumption was represented by soft-woods, and it was common knowledge that the supply of soft-woods in our native woodlands was exhausted to a large extent during the war. The remaining stands of timber in England and Wales (apart from Scotland, where the problem was of quite a different character) were very largely hard-woods. An argument invariably advanced—and which had greatly handicapped steps being taken to encourage the demand for native hard-woods—was that the native timber was of an inferior quality compared with the imported supplies. That was undoubtedly true if some of our Scots pine or other native conifers were used for building purposes, but when really good quality native timber was placed on the market the demand was often unsatisfactory and the price realised poor. Any suggestions for increased utilisation were based strictly on the following condition—that the native timber should be used where it was suitable and available for the specific purpose, and compared favourably in quality and price with the imported supplies. The strongest case could be made out in regard to the three most common hard-woods of oak, elm and beech, which were the most important to our English woodlands. Those three species possessed characteristics which compared favourably with the imported supplies, and for some purposes were distinctly superior to any of the same species from abroad.

Mr. B. W. Adkin remarked that of late years builders had largely used foreign oak for doors and window-sills, and it compared very unfavourably with British oak. The difference was marvellous when one had to deal with premises over a course of years.

Mr. Leslie S. Wood instanced a recent case which came under his notice where a specification was sent out, and builders were asked to give alternative estimates for the use of English and foreign timber. The part relating to the use of English timber was left blank.

Professor H. A. Pritchard said he thought in regard to the specification of home-grown timber for building purposes they ought really to move with the Royal Institute of British Architects to a certain extent. Not long ago there seemed every prospect of the R.I.B.A. including British oak in their standard or model specification for use in door-frames, window-sills, and so on. He agreed with Mr. Duchesne that there was no need for the costly telegraph poles now specified in rural districts. Suitable poles could be supplied from the nearest plantation at a quarter the present cost. He thought the fact should be put before the Postmaster-General.

Colonel G. L. Courthope, M.P., said the Office of Works had now definitely come round to the opinion that for heavy constructional work English oak did not require seasoning. During the last ten years he had supplied the whole of the oak for the roof of Westminster Hall. At first wood of average seasoning was required; latterly the request had been for oak as rapidly as possible after the tree had been felled. In one experimental back, oak had been used which within three months was growing in the tree. Of course, in regard to floor-boards, panelling, etc., the position was different.

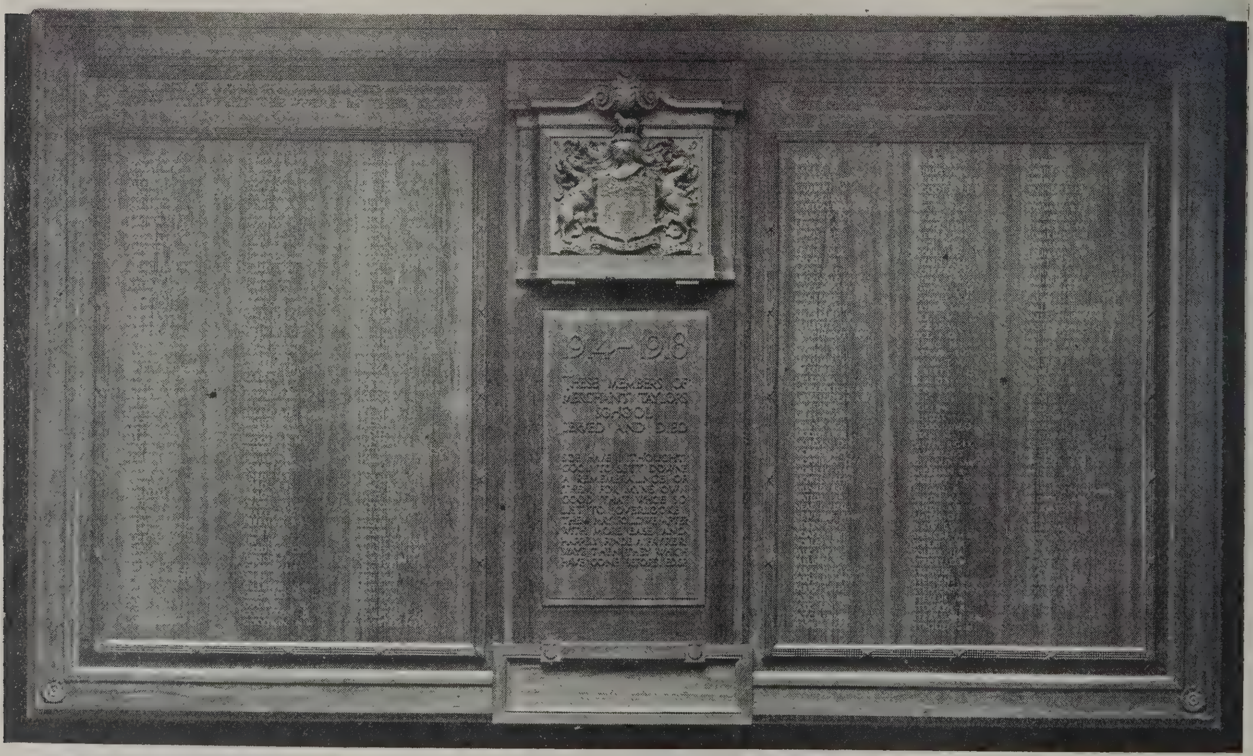
Mr. J. S. Corbett moved: "That the Forestry Commission be requested at the earliest possible date to take such steps as shall lead to English commercial timbers, particularly elm, oak and beech, being submitted to such scientific tests as may be considered necessary to prove their stability for constructional purposes, including use for street paving block purposes."

Colonel Courthope, M.P., seconded the resolution, which was adopted.

The following resolution was also passed: "That this conference is of opinion that home-grown timbers are not specified by Government departments, municipalities and public bodies to the extent which the qualities and properties of home-grown timber deserve, and that all public authorities concerned are requested to give this matter their immediate and sympathetic consideration, particularly on account of the depressed state of the English timber market and the consequent unemployment, and that a copy of this resolution be sent to the departments and bodies concerned."

Colonel Wheler, M.P., suggested the formation of a Forestry Sub-Committee of members of the Agricultural Committee in the House of Commons to look after forestry interests, and this suggestion was welcomed.

Mr. Duchesne suggested a renewal of the conference in the autumn with the object of meeting a deputation from the Home-Grown Timber Federation, and that suggestion was approved.



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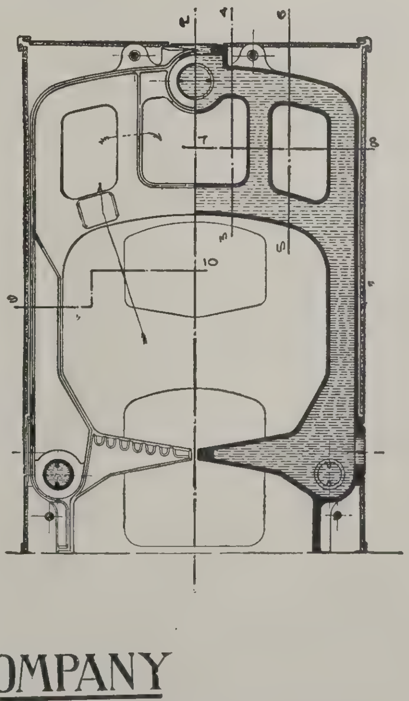

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New Books.

"Warming Buildings by Hot Water." By F. W. Dye. Third Edition. Revised. London: E. & F. N. Spon, Ltd. Price 12s.

It is a satisfaction for a reviewer to be able to perceive that friendly criticisms offered upon one edition are accepted in the proper spirit for the benefit of a subsequent edition, and such perception is present in this instance.

To take up a book by Mr. Dye is tantamount to perusing one evidencing thought and the outcome of experience—the experience of a man who has executed much work himself, and perhaps learnt a good deal through the almost inevitable medium of mistakes.

On page 16 it would seem as if 117° should read two degrees less, and Fig. 12, which indicates the flow as tapped off the top of the boiler, does not agree with the diagram (Fig. 13) where the flow is taken off the side.

An interesting point, arising out of the author's own experience, is the suggestion that "the best work is done by radiators placed against a solid or blank wall (a wall without a window or opening in it) and facing a similar wall . . . and experience shows that they are best put at that part which comes nearest to a wall with a window in it," and, further, the author points out that to deal with the air of churches there should be a second set of pipes or radiators at just about 15 feet above floor level, as the lower set has little or no effect in warming the air above that level.

It is a slight solecism in grammatical construction to write (as the author does in various places) of differing *to* and a variation *to*, as there happens to be a prejudice in favour of the form "differing (or a variation) *from*." And is it a fact that "with pipe fixed vertically, the air warmed by the lower part streams up around the upper part and defeats the latter in heat emission more or less"? We should have thought that with vertical fixing there would not have been any ill effect.

The author emphasises the superiority of mere pipe runs, as contrasted with the use of radiators, for glass-houses.

Mr. Dye has a rather unfortunate habit of repeating and re-repeating himself in the text. On page 219 (last line of the first paragraph) the word should read as "sufficient," not "*in*sufficient." There is need of a very careful revision of the tables at the end of the book before a further edition is issued, as the decimal points are not invariably correctly placed, and the plus sign is substituted for the multiplication sign at the bottom of page 270.

The author has a special capacity for expounding his subject clearly and logically; it is the combination of practical experience, lucid mind and power of expression. Nor does he fail to put the coping stone on, in the shape of a carefully prepared index.

"The 'Express' Superficial Cube and Girthing Reckoner." By J. Gall Inglis, F.R.S.E. London: Gall & Inglis. F'cap 8vo. 2s. 6d.

The value of a pocket book of this nature depends mainly, if not entirely, upon three factors, and these are accuracy, lucidity of application and directness of application. Probably most calculators would prefer to work out the required sum at any moment than to be obliged to dodge about from section to section of a pocket book in order to collect the parts necessary to make the desired whole. To the extent that the present handbook gives direct and correct information it will prove satisfactory, and no more. Take, for instance, the conversion tables on pages 14–17; the value of stating every entry at 18 square inches under proof (page 14) and 1 square foot under proof (page 15) is not as obvious as Mr. Inglis suggests. And when multiplication of numbers (that is to say, feet and inches) is required, the use of the duodecimal system is speediest and best, supplying a sufficiently practical approximation.

Without a searching examination of the figures in detail, it is evident that in *general* the large amount of labour devoted by Mr. Inglis to this pocket book produces accurate results; and there should be no two opinions as to the value of the girthing tables in Section V.

"Manual of Reinforced Concrete." By Charles F. Marsh, M.Inst.C.E., M.A.M.Soc.C.E., M.I.Mech.E., etc., and William Dunn, F.R.I.B.A., Assoc.Inst.C.E., etc. London: Constable & Co., Ltd. 21s. net.

The fact that the above manual has reached its fourth edition appears to afford abundant proof of its utility and value, and a study of its pages gives proof of the exhaustive manner with which every detail of the subject is dealt with. The innumerable uses to which reinforced concrete can be applied renders it of first importance that the principles governing its use should be fully understood; and such a book as the one under review, dealing as it does in such a thorough and practical manner, and being so fully and completely illustrated, cannot but be of the utmost value to all engaged in the art and practice of reinforced concrete work.

"The Law and Practice of Rating and Assessment." By Clarence A. Webb, F.S.I. London: Crosby Lockwood and Son. 2nd Edition, 15s.

Mr. Webb is already known as the author of another valuable work, "The Valuation of Real Property," and the one under review is no less excellent. At the present moment, too, the subject possesses a special interest, in view of the re-assessment that is taking place throughout the country, with the exception of the Metropolis.

There are naturally references to the Rent Restriction Act, but the first (on page vi) is already out of date; the tenant-public is, however, eagerly awaiting what the Government will do to give further period of relief. Of course owners of property regard these Acts from a less favourable point of view.

The Valuation (Metropolis) Act, 1869, has a more lucid definition of "gross" and "rateable" values than the earlier Acts, though (as Mr. Webb points out) the underlying intent is the same throughout.

One slight amendment on page 126 is necessary, by the substitution of 6 per cent. for 5 per cent. as architect's charge. Here, there and elsewhere, too, opinions are expressed or legal enactments stated which leave one cold, and justifiably so, especially when it is found that rating experts themselves differ considerably in their estimates.

Every surveyor and every public library should add this work to their shelves to keep company with other books of a standard character.

"The Lure of the Loire." By Mary Raphael. London: Mills and Boon, Ltd. 5s.

Mrs. Raphael is better known as an artist than an author, though this book is not her first venture into the realms of literature. But it is as an artist that she appeals most in the pages of her book about the Loire country. When she is discussing pictures or when she describes scenery, we have the artist revealed. In other places there is apt to be apparent the tyranny of phrasing and of phrases.

But throughout, the liveliness and esprit of the authoress are in evidence. It is, for example, a happy piece of phrasing when Mrs. Raphael writes the "sturdy oaks just breaking into leaf scurried past me," this railway travel illusion of motion being thus aptly expressed. And once again, "the jewel-like windows of old stained glass"; she rightly adds that "we cannot do anything in these days to touch those many-hued glories."

We learn from this book that at the Chateau of Villandry imitation windows had been painted on the walls, a piece of barbarism which the present owner has removed. The authoress exhibits some confusion in the use of architectural terms, but perhaps this is not to be wondered at; in various places she uses the term "machicolated," where it is fairly evident that merely battlements are in question, and she refers to pinnacled windows, where doubtless labels are intended. After all, this is not an architectural guide-book, but one for the general public, forming, as it does, one of a series entitled "The Lure of Travel."

Her historical information, though not perhaps extensive, is certainly in some instances peculiar, wherein she differs from the lamented Sam Weller. But for passing a pleasant hour "The Lure of the Loire" may well serve its purpose.

"Plane and Geodetic Surveying for Engineers." Vol. I., Plane Surveying; Vol. II., Higher Surveying. By David Clark, B.Sc. (Lond.), M.Inst.C.E., Professor of Civil Engineering, University of Dublin. London: Constable & Co., Ltd. Vol. I., 26s. net; Vol. II., 25s. net.

The first volume of this comprehensive work is designed to form a complete treatise on plane surveying with such parts of geodetic work as are of interest to the civil engineer, and covers in ten chapters the more common surveying operations of the engineer. The second volume, leading on from the first, deals equally exhaustively with Field Astronomy, Geodetic Surveying and Levelling, and Reconnaissance Surveying and Mapping.

These volumes cannot fail to be of the utmost value alike to the student as to the more experienced practitioner; the one will find within its pages much that will interest as well as instruct, while the other will discover much that he can rely on in cases of difficulty or doubt, as the whole work is eminently practical and complete as a reliable textbook on the subjects with which it deals, with a profusion of entirely reliable detail, but without redundancy.

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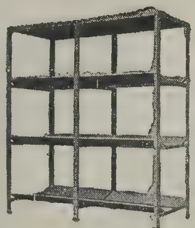

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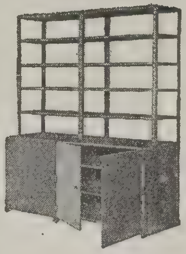

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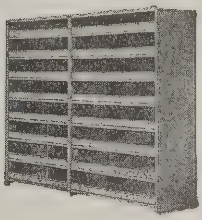

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Housing Subsidy for Scotland.

The Scottish Board of Health have issued to all local authorities a circular explaining the provisions of the Housing Bill. The Bill has not yet been passed into law, and is still subject to amendment; but the Board suggest that action should be taken immediately in anticipation of the passage of the Bill so that the maximum advantage may be taken of the present building season. The Board suggest that the local authorities should proceed at once to determine what form of assistance they are prepared to give to private enterprise, and to ascertain the extent to which private enterprise in their districts is ready to respond. As the Bill stands at present, the State contribution towards the expenses incurred by the local authorities takes the form of an annual subsidy. The local authorities' proposals may take the form of assistance to private enterprise or of the provision of houses by the local authorities themselves. Where the local authority undertake the erection of houses themselves or where the assistance granted to private enterprise is not less than the equivalent of £6 a year for 20 years, the Government contribution will be a fixed annual payment made to the local authority of £6 a year for 20 years on each house completed and ready for occupation before October, 1925. This date may be extended to January, 1926, if the Board are satisfied that the construction of the house was begun within reasonable time, and that the failure to complete the house before October, 1925, was due to circumstances over which the local authority or person building the house had no control. In Committee on May 31 the Minister of Health accepted an amendment, which was carried, substituting June 1, 1926, for October 1, 1925, as referred to above.

The assistance given by the local authority to private enterprise may take one of three forms: (*a*) A lump sum grant per house; (*b*) a refund to the ratepayer of the whole or part of the rates on a new house over a period of years; (*c*) periodical payments to a building society of any part of the amounts due from a member of the society in respect of interest on or payment of the advances made to him by the society for the purpose of building a house or purchasing a newly constructed house.

Powers are also given under the Bill to local authorities to advance loans to builders and others for the construction of houses of which the estimated value does not exceed £1,500. The loans will be secured by a bond and disposition in security or other appropriate deed of security. The amount of advance and the rate of interest to be charged will be within the discretion of the local authority, subject to the approval of the Board. The Board suggest that the proportion of the capital which the local authority should require the owner of the house to provide should ordinarily not be less than 10 per cent. During construction the local authority are empowered to make advances up to 50 per cent. of the value of the work done, including the value of the builder's interest in the site. The Bill provides that a local authority's powers to lend money for this purpose shall expire on September 30, 1925, but at the Committee stage this date has been extended by a year.

The Bill also amends the Small Dwellings Acquisition (Scotland) Acts so as to enable loans to be made within much wider limits than hitherto to persons who desire to build or purchase a house for their own occupation. It is proposed that the Act should be made available for houses up to £1,200 market value, and that the percentage which may be advanced should be within the discretion of the local authority.

The local authorities are also empowered to guarantee the repayment to a building society of an advance made to any of its members desiring to build or acquire a house having an estimated value of not more than £1,500. The object of both the provisions in regard to building societies is to enable a society to advance a larger proportion of the cost of a house than its rules would normally allow. Although the clause relating to guarantees is also applicable to a larger type of house than that which is eligible for subsidy, a guarantee in addition to the subsidy may be given for a house for which subsidy is granted. The guarantee would be given in respect of the excess advance over that normally granted, and would continue until the loan had been reduced to the amount which would normally be granted. In this way it is hoped that many persons who could not otherwise find the necessary capital will be enabled to build houses for their own occupation.

The administration of the schemes for giving assistance to private enterprise is almost entirely in the hands of the local authorities themselves, and it is to the local authority that a person who wishes to take advantage of the facilities offered should apply.

The Board are prepared to approve proposals by the local authority for building houses themselves; but before approving any such proposals the Board will require to be satisfied that the needs of the area can best be met in this way instead of by private enterprise either without assistance or with the assistance of a loan or guarantee or subsidy from the local authority under one of the methods that have been described.

The assistance offered under the Bill is restricted to: (*a*) Two-storey houses with a minimum superficial area of 620 feet, maximum 950 feet; (*b*) flats of one-storey houses with a minimum superficial area of 550 feet, maximum 880 feet. A clause, however, has been inserted in the Bill permitting in exceptional circumstances a reduction of the minimum measurements to 570 superficial feet for a two-storeyed house and to 500 superficial feet for a flat or one-storeyed house.

Where the local authority put forward schemes for building houses themselves the Board propose to leave the details of schemes entirely within the discretion of local authorities, and, save in exceptional circumstances, they will not require local authorities to submit to them for approval plans or specifications. The circular states that the Board rely on all possible economy being exercised by local authorities, who will appreciate that under the form of contribution now proposed the full benefit of the economy will accrue to the rates. Local authorities, therefore, will be well advised in formulating their proposals to have a prudent regard to building costs and the building capacity of their areas. The number of houses to be put in hand immediately should not be in excess of the number that can be rapidly completed by the available building labour of the district. The Board urge local authorities to keep in mind in formulating their proposals the object of assisting the early resumption of private enterprise in the building of working-class houses without the necessity for expenditure from either national or local funds.

Varieties.

The directors of the Great Western Railway, on the 8th inst., authorised the reconstruction of Aberystwyth Station at a cost of nearly £100,000. At Barmouth substantial alterations are to be carried out at a cost of about £25,000. At Port Talbot Docks the reconstruction of No. 10 Belt Conveyor, with consequent alterations to rail facilities and tipping arrangements, is to be taken in hand at a cost of £13,500.

The Royal Institute of British Architects has forwarded to Canon Alexander a cheque for £300 as a subscription towards the Preservation Fund of St. Paul's Cathedral. Among the allied societies which have joined with the Institute in making this contribution have been the Berks, Bucks and Oxon Architectural Association, the Birmingham Architectural Association, the Incorporation of Architects in Scotland, the Manchester Society of Architects, the Nottingham and Derby Architectural Society, the Northamptonshire Architectural Association, the Northern Architectural Association, the South Wales Institute of Architects, and the Sheffield, South Yorkshire and District Society of Architects and Surveyors.

The Salford Guardians have accepted the offer made by a local syndicate for the sale of their workhouse in Eccles New Road for lay-out as a garden village. The site comprises 32,602 square yards, and was sold for £12,225. Mr. H. C. Lassam, of Messrs. Charles Clegg and Sons, Brown Street, Manchester, the company's architects, recently attended the Board meeting and exhibited models of the suggested lay-out. The scheme includes the erection of 102 houses of the villa type, and 36 shops. The latter will be built in crescent fashion. Mr. Lassam informed the Board that some of the villas would be built in groups of four, and others would be semi-detached. There will be no back yards or passages, and the blocks will be so arranged that one will not cast its shadow upon another. The rentals will be from 15s. to 25s. per week. If the Ministry of Health gives its sanction to the scheme the work of demolishing the 80-year-old workhouse will begin forthwith. The lay-out will cost about £70,000, exclusive of the site value.

W. Anderson & Son, Ltd., Manchester, London and Belfast, have combined a box of samples with the gift of a glazed painting palette which should be useful on many an architect's table when he is dabbling with colour for his drawings. The samples of Anderson's specialities include "Sidol" wood preservative, "Stoniflex" sarking and roofing felts, various thicknesses of "Rok" roofing and dampcourse, "Anderite" and "No. 2" pure bitumen dampcourse, and "Sanodor" lining felt. This firm have long been known in the building trades, but it is nevertheless an excellent idea to send out so useful a reminder of their goods to those who specify or purchase them. As the company say in the foreword of their pamphlet, every building in construction admits of the use of one or other of their manufactures. This compact box of samples gives an idea of them which could not be obtained by any amount of verbal description. It is the sort of enterprise which one would expect from a firm who were the pioneers of the "Belfast" (lattice girder) roof.

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General.

Mr. Herbert Winstanley, architect, of St. Anne's, has prepared a scheme for a considerable enlargement of the Art Picture House, Fleetwood.

Mr. W. I. Tennant, of Pontefract, is architect for extensive additions about to be made at the Southgate Dispensary and at the Conservative Club, Pontefract.

At a general meeting of the Royal Society of Portrait Painters Sir William Orpen, K.B.E., R.A., was elected president, in succession to the late Sir James J. Shannon, R.A.

The Housing Committee of the Wolverhampton Corporation have accepted the tender of Mr. A. Powell, a local contractor, amounting to £36,280, for the erection of 100 " B " type houses on the Birches Barn estate.

The contract for the erection of a new wing to the Worksop Victoria Hospital, which is to form part of Worksop townspeople's war memorial, has been given to Messrs. Greenwood, of Mansfield, the tender being £10,670.

Plans for the reconstruction of Appleford railway bridge (G.W.R.), which crosses the Thames below Culham Lock, were approved by the Thames Conservancy on Monday last. The new bridge will be of one span of 168 feet.

Mr. Reginald Bruce, A.R.I.B.A., P.A.S.I., has been appointed chief surveyor to the Manchester and District Town Planning Advisory Committee. Mr. Bruce, who is assistant hon. librarian of the Town Planning Institute, has been working with Mr. W. R. Davidge, F.R.I.B.A.

Mr. H. Liversage Goldsmith, 62 Dale Street, Liverpool, is architect for the offices about to be erected at Cornholme Works, Garston, for Messrs. Wilson Brothers' Bobbin Co. A tender by Jos. Rawlinson & Sons, of Garston, amounting to £15,979, has been accepted for the work.

Messrs. John Bright & Brothers have bought the freehold of 21,000 square feet of the old G.P.O. site at St. Martin's-le-Grand. The premises to be erected thereon will be to the design of Mr. Josiah Gunton, F.R.I.B.A., and will face St. Martin's-le-Grand and Gresham Street, E.C.

The board of directors of Guild Housing, Limited—the first of the new Guild contractors—have decided that the reductions ordered in the wages of the building trades' operatives by the recent arbitration award shall not apply to any of the workers in the service of the Guild.

During the past few days the Housing Committees of many local authorities have decided to apply for sanction to erect new houses. Among them were those at Newcastle (206), York (50), Plymouth (52), Greenock (400), Rotherham (16), Nuneaton (74), Dudley (32), Witham (6), Bristol (160), Easington (250).

Mr. Richard Drury Lown, of Babbacombe, Devon, late of Netherhall Gardens, Hampstead, retired builder, who died on February 24, aged 98, left estate of the gross value of £80,421, with net personalty £26,489. Mr. J. Fenwick Simpson, of Newcastle-on-Tyne, builder and contractor, left estate valued at £18,080.

Mr. John Howitt, F.R.I.B.A., principal in the firm of J. Howitt & Son, architects, died at Nottingham on the 9th inst., at the age of 70. Mr. Howitt, who was widely known in professional circles, had taken a prominent part in the work of the Masonic craft, being past Provincial Grand Warden of Nottinghamshire.

Plans were passed by the Easington Rural Council recently for 129 houses at South Hetton, for the South Hetton Coal Company, and 195 at Easington for the Easington Coal Company under the subsidy scheme. The Horden Colliery Company, it was mentioned, were building 253 houses, but were not applying for the subsidy.

The Bexhill Town Council has decided to proceed with the negotiations to purchase part of the Coastguard property for £2,000, as a site for an entertainment hall or pavilion, and to obtain designs for the erection of a two-storey building, at a cost not exceeding £25,000, providing for concert hall, small lecture hall, refreshment room, etc.

The Plans Committee of Middlesbrough Corporation on the 29th ult. approved a scheme for the erection of an exhibition building in Union Street, with accommodation for 4,500 people. Other plans passed at the same meeting included one for the erection of a Baptist chapel in Southfield Road, another for a baker's large premises, and 14 plans for new houses.

The General Board of the Faculties in the University of Oxford have authorised the course of lectures on " Mediæval Architecture, with special reference to England and France,' arranged by the Committee for the Fine Arts to be delivered next winter. Mr. W. G. Newton, M.C., M.A. (Oxon), A.R.I.B.A., has been appointed lecturer on the recommendation of the Royal Institute of British Architects.

The Cardiff Waterworks Committee have accepted the tender of Messrs. Hybart, Broadhead and Co., of London and Reading, at £62,911, for the laying of the first section of the second pipe-line from the Waterworks storage reservoirs in Breconshire, a distance of about 20,800 yards. There were twelve other tenders.

Twenty-seven cement-producing mills represent the cement interests in Canada, according to a list just published by the Mines Department. These vary in capacity from 200 barrels per day to 12,000, the greater portion having a capacity of from 1,000 to 4,000 barrels daily. The Canada Cement Company, at their Montreal mill, have the maximum capacity of 12,000 barrels. The same source of information gives the number of plants in Canada making sand-lime bricks as 17, with capacities up to 50,000 per day.

Building operations have now been commenced at the Barker Estate, Upper Richmond Road, East Sheen, which has been developed by Messrs. C. & E. Melville. The whole area is an extensive one, and plans have been prepared for about 300 houses of various types. The contractor for the first group now being erected is Mr. Oliver Kennard, of Westwood Road, Sydenham, S.E.26. The architect appointed for the whole of the work is Mr. Sydney E. Castle, of 40 Albemarle Street, W.1, who has designed houses of the old English simple type.

The contract for carrying out the memorial arch across the Menin Road, which has been designed by Sir Reginald Blomfield, R.A., which is to commemorate the defence of Ypres, has been given to the firm of D. G. Somerville & Co., Ltd., of which Mr. D. G. Somerville, M.P. for Barrow, is the head. There was the keenest competition on the part of Belgian, French and British firms. Tablets will be let into the sides and inscribed with the names of the men who fell in the defence of the town. The memorial will approach the proportions of the Arc de Triomphe in Paris, and will cost ten million francs.

Colonel Ashley, Parliamentary Secretary to the Ministry of Transport (New Forest, U.), has stated that as regarded Greater London the total mileage of new arterial roads in progress or about to be begun was 141 miles, of which 108 miles were entirely new, while thirty-three miles were widened and improved highways. Of this total length twenty miles had already been made available for traffic. He hoped that in the course of this year a further length of nearly fourteen miles might be opened, and it was expected that the whole programme, comprising 141 miles, would be completed within two years.

The Victoria and Albert Museum has recently acquired, through the generosity of the National Art-Collections Fund, six roundels of stained glass from a series representing the labours of the months. These roundels were formerly at Cassiobury Park, Hertfordshire, and are rare examples of English domestic glass, dating from the first half of the fifteenth century. They are painted in brown enamel and silver yellow stain, and are remarkable for the vigour of their execution. Other recent acquisitions of stained glass include two Dutch panels of the Haarlem school, dating from the early sixteenth century, purchased out of the income from the bequest of Capt. H. B. Murray.

Lord Eustace Percy, in a written reply to Mr. D. G. Somerville, says that, according to returns received from 1,067 local authorities, 9,971 houses of a rateable value up to £26, 4,090 houses between £26 and £52, and 702 between £52 and £78 (up to £35, between £35 and £70, and £70 and £105 respectively in the case of the Metropolitan Police district) had been erected by private enterprise during the six months ending March 1 last. In addition, 8,480 houses, containing five rooms or less, 8,668 containing six to eight rooms, and 545 containing nine to twelve rooms were in course of erection on that date. The Minister of Health has no reason to suppose that the supply of building materials will not be equal to the demand.

Messrs. George Cohen, Sons & Co., with Sir W. G. Armstrong, Whitworth & Co., Ltd., have arranged with the Disposal and Liquidation Commission to sell on their behalf the remaining stocks of locomotives and rolling stock; railway material and equipment; plant and machinery; iron and steel buildings; huts and equipment; metals; electrical plant; aerodromes; small crafts; furniture and medical stores. It is expected that £6,000,000 will be realised. A previous contract between the Disposal Board and Messrs. George Cohen, Sons & Co., which will be completed in a few weeks, will result in sales amounting to over £3,000,000, employing 7,500 workers at sixteen factories and depots. Mr. George Levy, who has been responsible for the negotiations of both contracts, has endeavoured to give preference in all cases to ex-soldiers. Separate offices have been taken at Abbey House, Westminster, by the contractors under the title of the " George Cohen Disposals Corporation," and it is hoped that they will be in a position to negotiate sales on July 1.

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The Value of Books.*

The value of most architectural books is governed by their author's powers of adequate description and terse and vivid definition rather than that of any analysis of the motives of designers or a valuation by the scales of æsthetic judgment, and most of those who attempt the last fail because the more we attempt to define our ideas the more it becomes evident that we do not possess any measuring scale which can be applied to what are little more than momentary sensations.

Geoffry Scott has succeeded where others have failed, but very largely because his book is chiefly an analysis and condemnation of the vague writing of those who have attempted to lay down rules where no rules are applicable. Instead of this he has been able to show that certain principles and synthetic methods can be applied to the buildings of the Renaissance and that these methods of synthesis may possibly have been more or less consciously applied by the architects of the Renaissance, and especially those of the Baroque manifestations.

Sir Thomas Graham Jackson has produced in the third volume of his work on "The Renaissance of Roman Architecture"—which is devoted to France—a well and vividly written description of the work of a most interesting phase. As might be expected, his sympathies are somewhat heavily weighted on the side of the earlier transitional work, for the author remains as he always was, imbued with sympathy towards mediæval design and out of touch with the more formal and academical work of the later periods. Considering his pronounced natural bias, his book is very free from any exhibition of marked prejudice, and it is useful in these days when the tide of expressed opinion has swung over to academical standards to read the views of one who is not swept away by the contemporary current of opinion. For this reason his work forms an interesting and useful commentary on that of Sir Reginald Blomfield and Mr. Ward, whose views are those of another school of thought. To such a writer as Sir Thomas Jackson the early French Renaissance architecture, Gothic as it was in its spirit, makes the strongest appeal, for the French succeeded where our contemporary architects often failed in giving their buildings a grace and delicate refinement which is often absent from the parallel work here and in Teutonic countries. It would perhaps be no exaggeration to state that, even in the later developments of French Renaissance, it never entirely lost the imprint of the architecture which it was grafted on to, and the barrier of the Alps marks the limits of the full Renaissance wave which submerged the architecture of Southern Europe. The French mind seems always to conceive a building as a complete theme of which the details are component parts governed by the general limitations of the whole, whereas in Italian architecture we often feel that the units of the composition have very largely determined the form of the completed whole. Be this as it may, there is more evidence of the mastery of mind over forms in French architecture than in that of any other nation.

The concluding chapter of the work is the least admirable and interesting, for the author uses sentences which show pronounced prejudice surprising in one of his standing and attainments.

"A good deal of what is really honest Gothic work is being done in our smaller houses, though it has none of the features which to the vulgar seem essential to the style; and even in domestic work based on the classic of the Georgian period the freedom of Gothic principles has coloured it and introduced a liberty in design unwarranted by the Book. But in our larger public buildings the orders still reign supreme in most cases, and we have not got beyond the Corinthian capital. Vitruvius and the text-books are still our authority, and the lapse of three centuries leaves us pretty much as it found us at the beginning."

The first part of the passage quoted is undoubtedly true, but the second might be the utterance of a March Phillipps or any of the impatient amateurs who are content to use old precedents in literature but resent its manifestations in architecture. We may have too many classic columns in modern architecture or we may not. If we use them we shall gain little by trying to vary proportions which have stood the test of time, and both column and traceried window are things of beauty. We are told further on that no conscious seeking for novelty will help us—a sentiment with which we agree. But if this be so it may even account for the occasional use of the "everlasting Corinthian capital."

Messrs. Tiranti have done a useful work in publishing a translation of the very interesting treatise on "Italian Renaissance Architecture," which we are told occupies the same position in France that the corresponding volume of Anderson's on the same subject does here. But it is a great pity that a better translator has not been employed, as the French sentences are often translated literally, so that it would be far easier for anyone with a fair knowledge of French to read it in the original. One is almost forced to retranslate it into French to realise the great ability and clearness with which M. Gromort writes. Nothing could be better than the description of the purpose and meaning of St. Peter's at Rome, not as a place of worship or a cathedral, but a great monument to form a symbol of the Catholic faith and to provide a central meeting place for its votaries from every part of the world.

"It is not a church, but an ancient basilica, a relic of Imperial Rome crowned by a dome which the Romans would not have known how to create."

In speaking of the architects of the Baroque period that they have even in their most dubious works such qualities of originality, movement and life that they have frequently approached genius without attaining it, they display the boldness, grandeur, and sometimes the madness of genius, it is, the author says, the architects of the seventeenth century who rediscovered a sense of space and light which makes their creations more purely Roman than those of the earlier and purer periods of the Renaissance.

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* "The Renaissance of Roman Architecture. Part III.: France." By Sir Thomas Graham Jackson, Bart., R.A. Cambridge University Press. 42s. net.

"Italian Renaissance Architecture." By Georges Gromort. Translated from the French. John Tiranti & Co., 13 Maple Street, London, W. 17s. 6d. net.

This book is admirably and fully illustrated and is written from a broad and liberal standpoint—the only method to be applied to a critical description of that great period in the world's æsthetic history, a phase which is likely, as far as can be seen, to dominate modern architecture, and before the strength of which the sporadic outbreaks of "free design" will in the end be powerless.

Our Illustrations.

THE LONDON COUNTY COUNCIL MAUDSLEY HOSPITAL, DENMARK HILL, LONDON, S.E.5.

William Charles Clifford Smith, Mental Hospitals Engineer to the L.C.C.

This hospital, the outcome of a generous gift to the London County Council by the late Dr. Henry Maudsley, was designed for the early treatment of uncertified cases of curable mental disorder and research work in the causation and treatment of mental diseases, and both Dr. Maudsley and Sir Fred. Mott, M.D., F.R.S., collaborated with the architect in the design and arrangement of the buildings.

The buildings were, when completed in 1915–16, taken over by the War Department for the treatment of shell-shock cases, and it is only recently that they have been restored to the Council and put into order for their original purposes. The Minister of Health formally opened the hospital for the reception of patients on January 31 last.

The hospital occupies a site of 4½ acres, it consists of two ward blocks, each of three floors, and an administrative building (facing Denmark Hill) with offices, stores and quarters for resident officers, and an outpatients' department with its consulting and treatment rooms. On the first floor above the latter is arranged the pathological and research section, with the chemical and microscopical laboratories and technical libraries, the photographic department being on the sub-ground floor.

A main corridor connects the administrative department with the out-patients' hall, the ward blocks, main kitchen, library, etc. The wards were originally designed on liberal areas for a total of 108 patients in six separate units, and are specially subdivided to permit of the classification of the patients. Gardens for patients are arranged on the south of the wards, and wide verandahs to take beds direct from the dormitories are available on the ground floor, covered bridges for the same purpose being arranged on the upper floors. Special rooms for bathing treatment are provided.

The main kitchen, boiler-house, workshops, etc., are centrally placed between the ward blocks, and the stewards' stores are in the sub-ground floor of the administrative block. The heating is by a power-driven hot-water system. A nurses' home adjoins the hospital, with which it has direct communication.

The elevation to Denmark Hill is designed in a free treatment of English Renaissance carried out in Portland stone and Southwater red bricks.

The total accommodation for patients has by a rearrangement been brought up to 157 in the proportion of 85 females and 72 males. The cost of the site and buildings amounted to £69,750, approximately £445 per bed.

The building contractors were Messrs. Holliday & Greenwood, of Battersea; the heating and hot-water supplies were carried out by the Brightside Engineering Co., of Sheffield; and the electrical installation by Messrs. Tyler & Freeman, of London.

The buildings and engineering work both were designed by the Council's Mental Hospitals Engineer, Mr. Wm. Chas. Clifford Smith, O.B.E., F.R.I.B.A., with whom was associated Mr. L. C. Gregory, A.R.I.B.A.

Notes and Comments.

Made in Germany.

At a meeting of the Consistory Court at Norwich, objection was raised to the granting of a faculty for the erection of a war memorial at Blakeney. It was not proposed to erect a war memorial, but to assemble the existing war memorial and private war memorial tablets in one place and put above them a crucifix and two carved figures made in Germany.

The parishioners in general, and the relatives of the fallen in particular, very strongly resented the placing of the German figures in proximity to the memorial, but they had no objection to the figures being placed anywhere in the church except in conjunction with the memorial. It had been argued that the figures were carved at Oberammergau, by Bavarians, and that Bavarians were not Prussians, but the men of Blakeney did not recognize the distinction, and the Chancellor stated that he did not either. In the absence of the Rector of Blakeney, whom the Chancellor said should have been present, the matter was adjourned till July 21. We think the men of Blakeney are justified, and the faculty should be withheld.

The Cenotaph.

The proposal made in a letter to "The Times" that the Cenotaph should be illuminated at night by means of an electric light within the laurel wreath on the top of the memorial seems likely to be widely supported. The Office of Works holds that the proposal will need very careful consideration, but if there was a strong body of opinion in its favour, the First Commissioner would pay very careful attention to the views expressed by the advisory committee which includes prominent architects, sculptors and recognised authorities on matters of taste.

If we could at the same time eliminate illuminated signs and advertisements the suggestion would carry with it greater weight, but there must be a feeling that to illuminate the Cenotaph at night will, in effect, tend to suggest other and less noble uses to which illumination is put.

Historic Houses.

Lord Lascelles, at a meeting of the National Art Collections Fund, made an appeal on behalf of the owners of great historic houses, the upkeep of which has become so great a burden under modern conditions. Lord Lascelles made two suggestions, the first being that the State, in recognition of the value of architectural beauty and historic interest, should afford relief to those owners who permitted the public to visit their houses; the second that the National Art Collections Fund or the National Trust should find the money for the upkeep of such houses. The last suggestion is perhaps usually impracticable for financial reasons, the first is both practicable and sound, while it might be coupled with another plan by which some part of an old house was allotted to the meetings of a local body or even made over to its uses, while the remainder of the house was left in entirely private occupancy. It is seldom that, as in the case of Stowe, a great house can be completely utilised for an institution, but it is probable that some part of many old houses might by arrangement be allocated for public or semi-public uses on terms which would afford the owner some sensible relief.

Mr. Waterhouse and the Elections.

Mr. Waterhouse's references to the elections in his speech at Edinburgh are what might have been expected, but do not seem to us to be either wise or calculated to lessen dissension. He assumes that the cause of the trouble lies on the shoulders of the present Council and those who have supported it, which seems to us to be historically inaccurate. Also that the new Council represents what we may describe as being the elect of the profession. We believe it would be possible to select an entire Council, none of the members of which are on the elected

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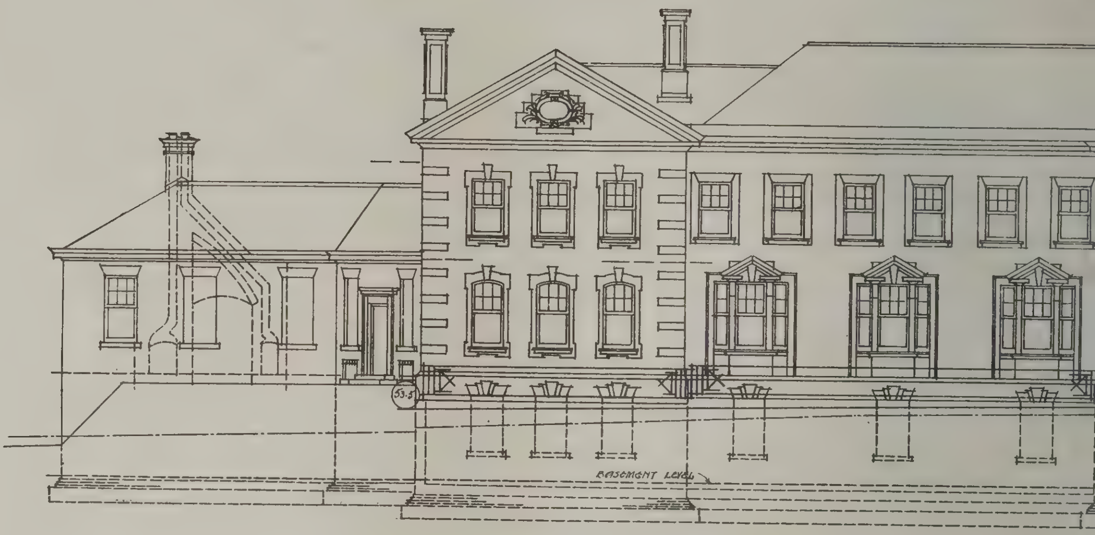

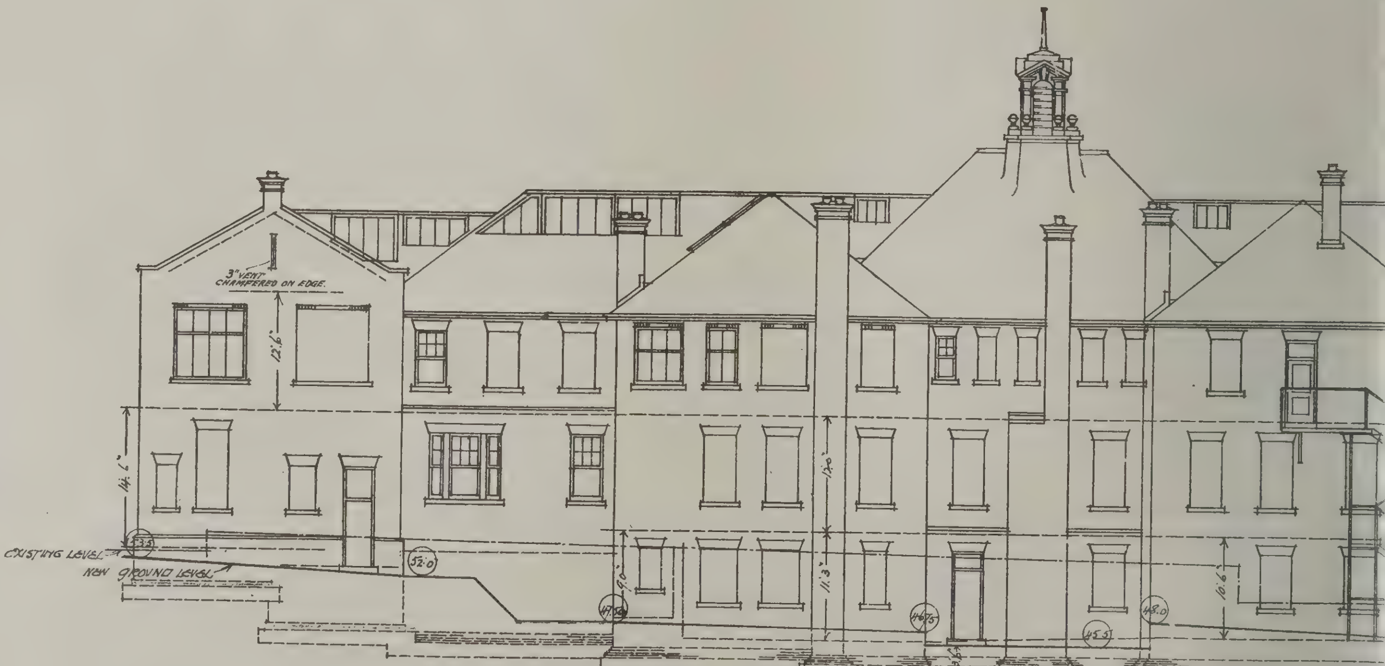

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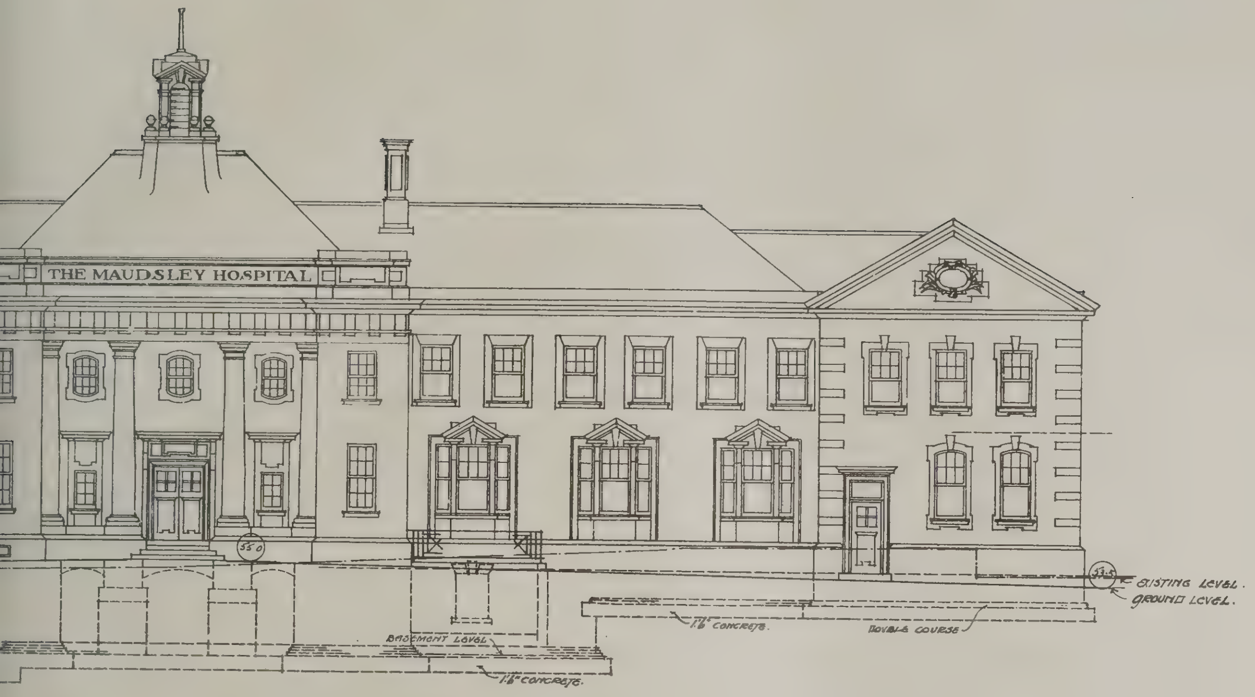

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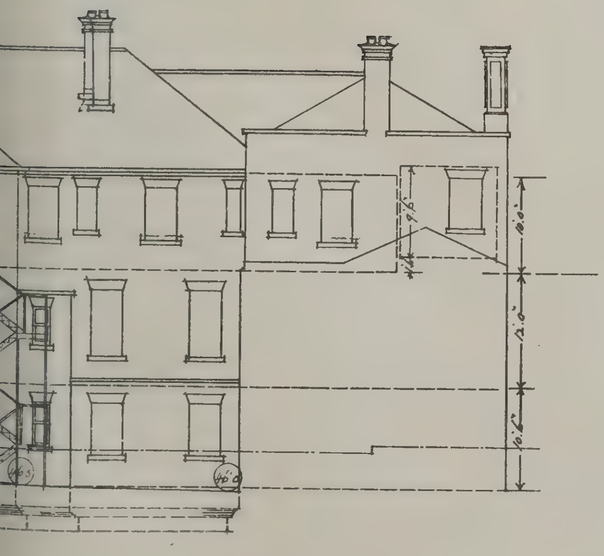

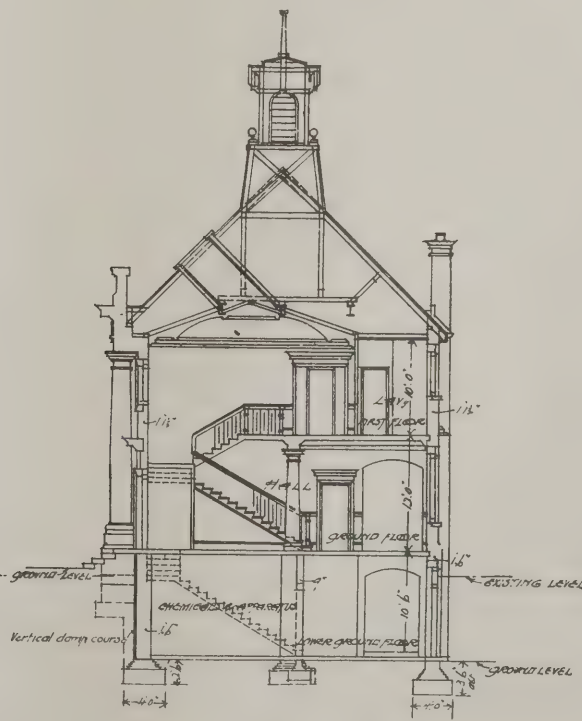

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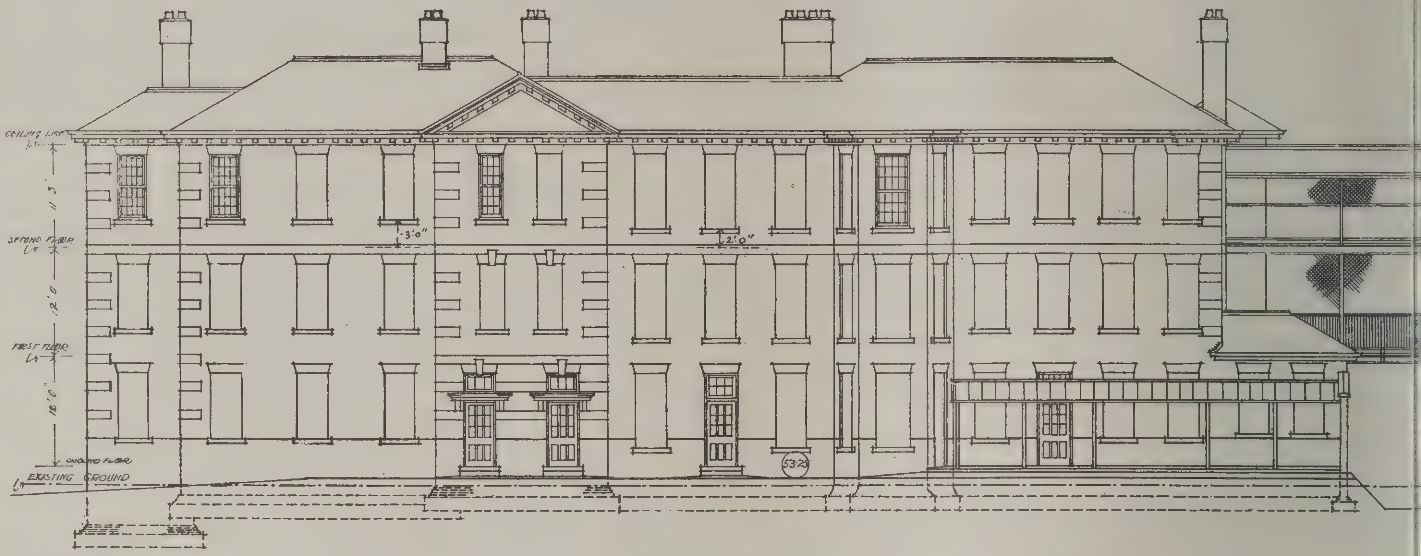

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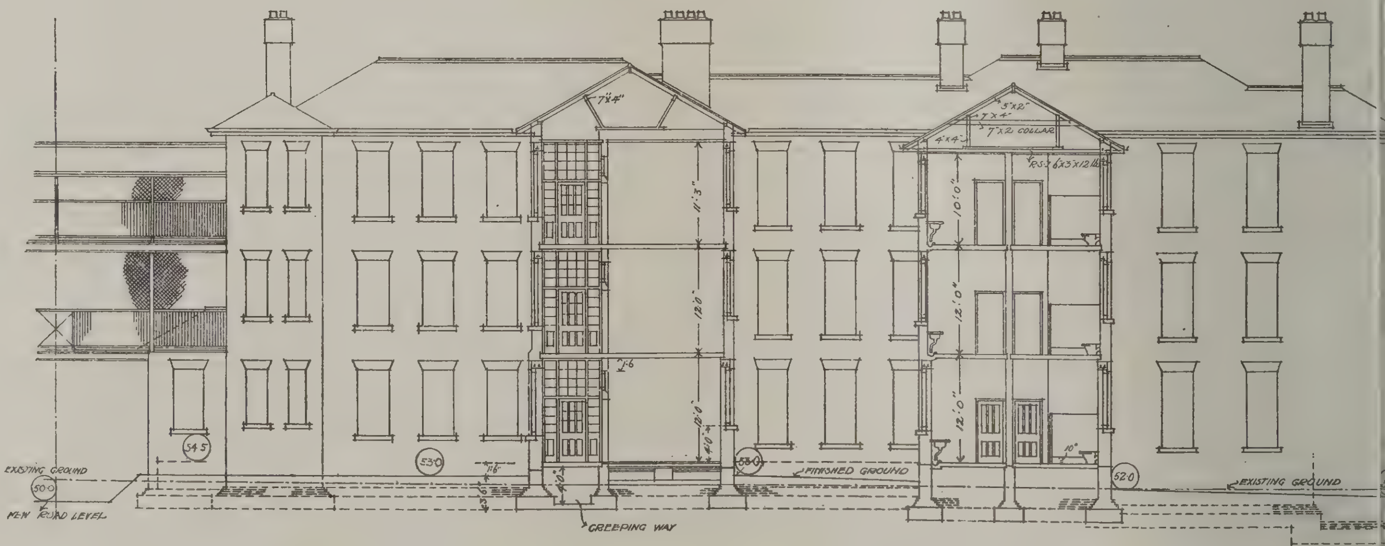

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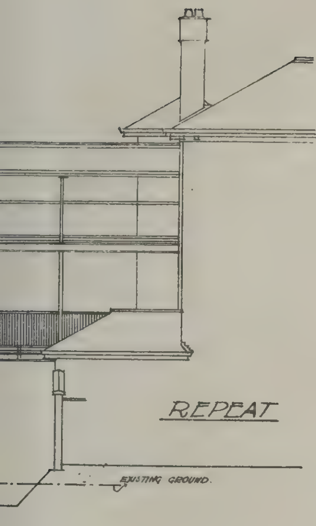

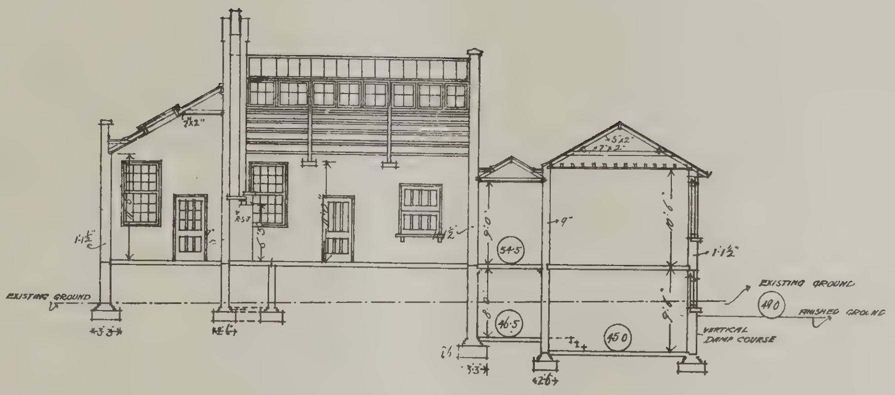

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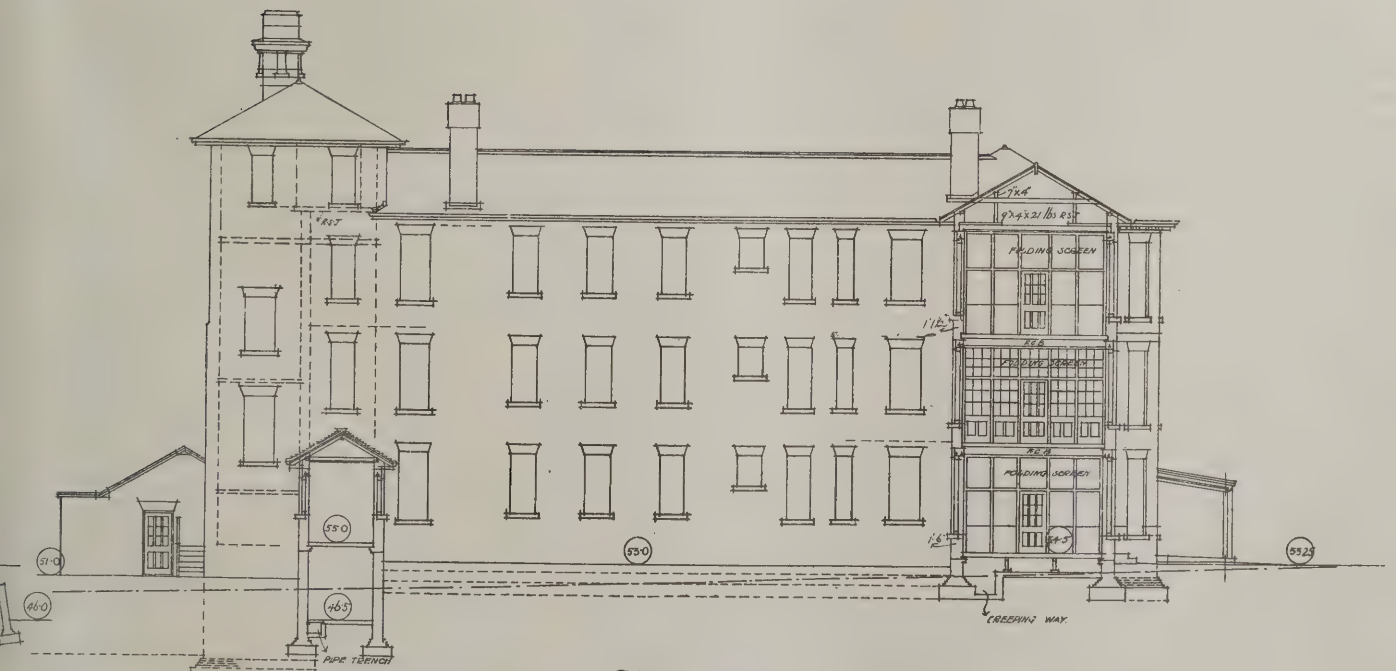

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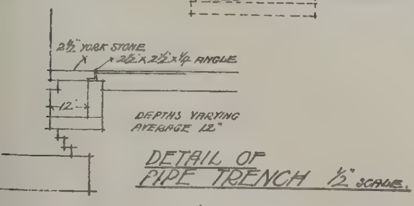

DETAIL OF PIPE TRENCH ½" SCALE.

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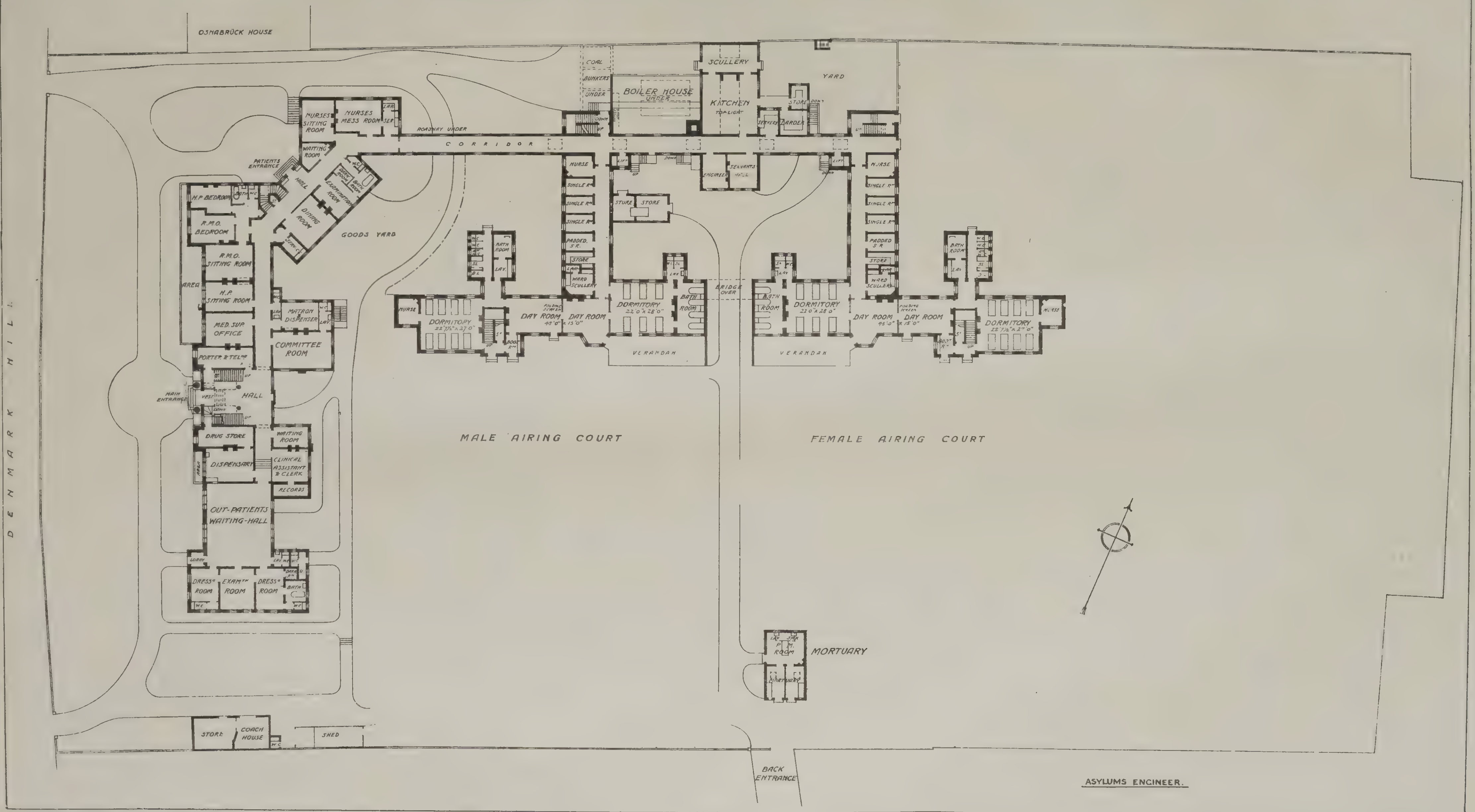

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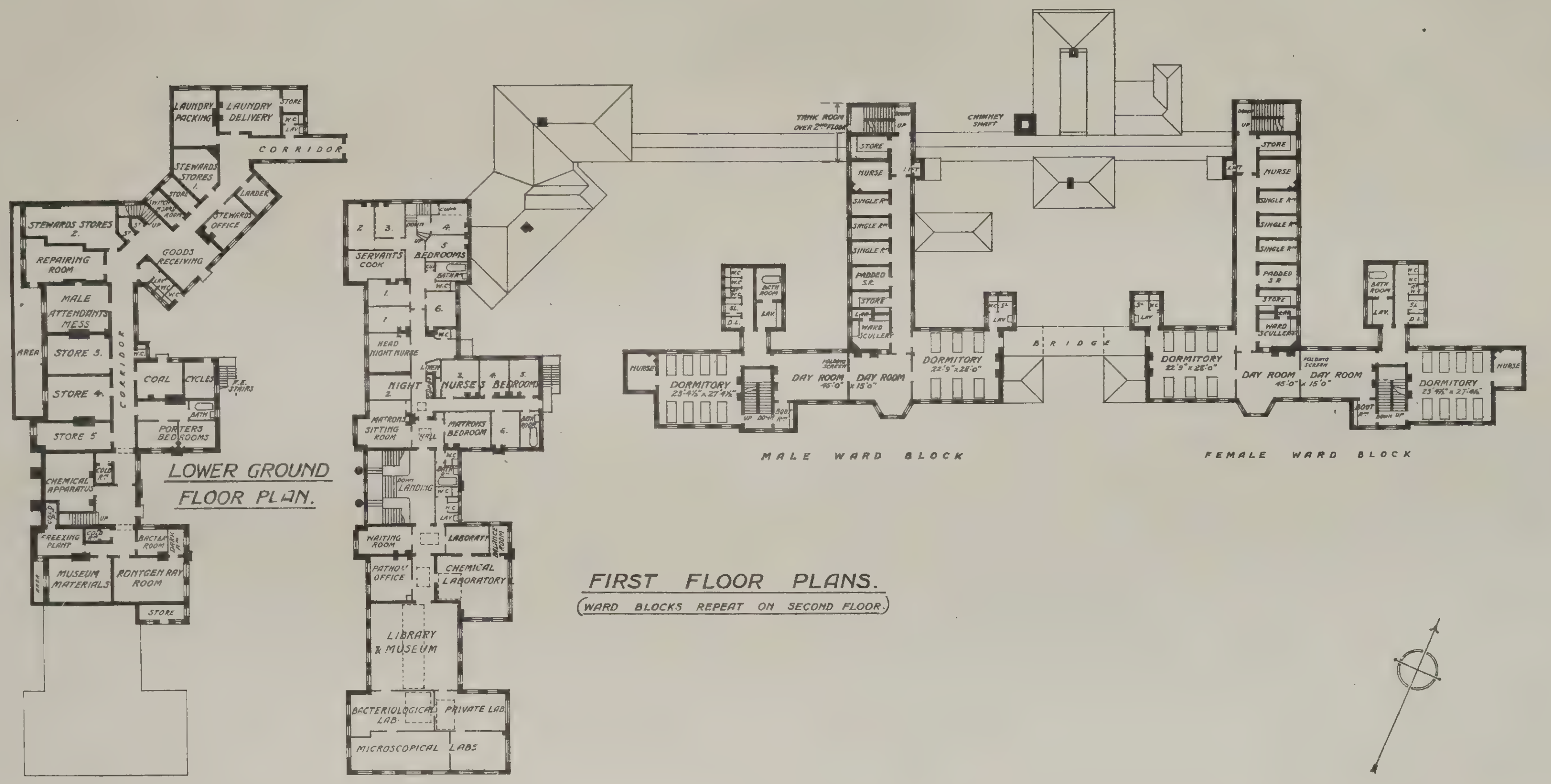

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COURTYARD AT HONFLEUR. By D. I. Smart, A.R.E.

list, who would as a whole compare well with it in ability and attainments. Granted that the Council elected in 1922 was weak in certain respects, it is hardly safe to assume that out of the general body a Council list could not be selected to maintain the same general views, and who at the same time might be well qualified to represent architecture. It seems to us that those who are afraid that dissensions may ruin the Institute might possibly be a little more careful before making assertions which show no appreciation of the fact that men of different views may possibly be equally honest and convinced. Nor do we believe that the Institute is in so precarious a state that it can only be held together by the exhibition of a false unanimity which has no foundation in fact.

Wren's Plan for London.

Professor Patrick Abercrombie has given in the current number of the "Town Planning Review" one of the best essays we have read on the merits of Wren's plan produced, as we know, in an astonishingly short space of time, but generally meeting all the requirements of the problem. Its adoption may, as Mr. Perks has pointed out, have been impossible for reasons of the enormous expense of forming new streets, though its abandonment was probably caused by the less sound reasons of individual prejudice. Professor Abercrombie, very rightly we consider, sweeps aside the criticism that Wren left an inadequate area for his cathedral, because it is evident that any general sketch draft was bound to be the subject of many modifications. Mr. Perks's other criticism, that the adoption of the scheme would have obliterated existing ward boundaries, has always seemed to us to be irrelevant, since the maintenance of historic boundaries can hardly seem to be a necessity or even advantageous *per se*. We do not feel that architects sufficiently realise the very great ability of Professor Abercrombie's critical work, which is founded on an immense fund of technical knowledge combined with a logical discrimination which is rare among architects.

"London of the Future."

Under the above title Mr. Collcutt has written a little book which is published by Leonard Parsons at 2s. 6d. It is, in brief, an argument and appeal for a larger and more generous treatment of the housing question in the interests of our common humanity. The means advocated are the reclamation of a large section of the southern side of the river between the County Hall and Waterloo Bridge, extending backwards to York Road, and the formation of a southern embankment flanked by blocks of buildings for the housing of the working classes, who by the nature of their occupations have to live in or near the centre of London. The site, which is at present occupied by wharves and warehouses, many of which are derelict, could doubtless be acquired on reasonable terms and little or no existing housing would be disturbed. Mr. Collcutt states that the whole proposal might be made to show a fair commercial return if rents comparable to those charged by the L.C.C. were obtained, and these rents would include payment for the services of heating, not included in the L.C.C. rentals. In addition, he makes out a good case for the spanning of the river by arcaded bridges both at Charing Cross and St. Paul's, these bridges being lined with business buildings which would, in the case of St. Paul's Bridge, largely increase the business area of the city within a small distance from its centre, and so reduce congestion. The book is very pleasantly and feelingly written and is brightened by the imagination and sympathy which render Mr. Collcutt's personality so engaging.

NURSE CAVELL MONUMENT, PARIS. A. VERMARE, Sculptor.

Royal Institute of British Architects.

The banquet in connection with the British Architects' Conference at Edinburgh was held on Friday night (June 15) in the Freemasons' Hall, George Street. Mr. Paul Waterhouse, President of the Royal Institute of British Architects, presided over a distinguished company of ladies and gentlemen numbering over 200. Among those present were Lord Alness (Lord Justice Clerk), Lord Sands, Bailie Watson, Sir James Balfour Paul, Sir Robert Philip (President of the Royal College of Physicians, Edinburgh), Mr. T. P. Marwick (President of the Incorporation of Architects in Scotland), the Rev. Professor Milligan (Moderator of the Church of Scotland), the Rev. Dr. Wallace Williamson (Dean of the Thistle), Mr. J. Alfred Gotch, F.S.A. (President Elect of the Institute), Sir Frederick C. Gardiner, Lord Dean of Guild Forrest, Dr. George Macdonald (Secretary, Scottish Education Department), Mr. James L. Caw (Director of the National Galleries of Scotland), Mr. Andrew Grierson, S.S.C. (Town Clerk of Edinburgh), Mr. E. J. Partridge (President of the Society of Architects), Mr. Arthur Keen (Hon. Sec., R.I.B.A.), Principal Laurie (Heriot-Watt College), Sir Banister and Lady Fletcher, Sir Robert and Lady Lorimer, Mr. W. T. Jones (President of the Northern A.A.), Mr. E. P. Warren (President of the Berks, Bucks and Oxon A.A.), Mr. Francis Jones (President of the Manchester Society of Architects), Mr. H. V. Lanchester (President of the Town Planning Institute), Mr. Percy Thomas (President of the South Wales Institute of Architects), Mr. James Lochhead (President, Glasgow Institute of Architects), Mr. T. Aikman Swan (President of the Edinburgh A.A.), Mr. C. J. Soutar (President, Dundee Institute of Architects), Professor Baldwin Brown, Hon. A.R.I.B.A., Mr. Ian MacAlister (Secretary R.I.B.A.), Mr. W. Glassford Walker (Secretary, the Incorporation of Architects in Scotland), Mr. Herbert A. Welch, Mr. William Woodward, and Mr. A. Lorne Campbell.

After the loyal toasts had been pledged, " Our Guests " was proposed by Mr. J. Alfred Gotch. Bailie Watson responded on behalf of the City of Edinburgh in the unavoidable absence of Lord Provost Hutchison.

Lady Fletcher, who also responded, said that she could not but be conscious that they were the guests not only of the Royal Institute of British Architects, but also the guests of Bonnie Scotland. She thought most Conferences helped them to smooth out their difficulties and to understand one another's point of view. She understood that the Institute was not entirely free from differences of opinion. The difficulties of registration had split every learned Society, including the nurses, and they had all come to a solution in the end, and she thought that doubtless they would do the same. They need not be alarmed about the competition of women. At the present time she did not think there were more women architects recognised than there were women Members of Parliament, and men apparently did not consider them to be great competitors there. In fact, the only thing she could see was their interest in observing how the women M.P.'s dressed. So far as women architects were concerned, they would all be asking what kind of working clothes will they wear, not what kind of houses will they design. She was very glad to have voiced the thanks of the women and to respond to that toast of mixed foursomes.

The Rev. Dr. Wallace Williamson also responded.

Lord Sands, in proposing the toast of " The Royal Institute of British Architects," said : I am aware that the majority of those present are members of that Institute, but still I think that they can all be invited to drink to its health, because, though it might be inappropriate that one should, on a public occasion, honour one's own personal health, one is always justified in honouring the health of the corporate soul of the community to which one belongs. The Institute has honoured Edinburgh by its visit. We greet their visit with satisfaction, and we congratulate them upon their choice of a city to visit, because, altogether apart from historical and romantic associations of Edinburgh, I think it would be difficult to find a city more worthy of the visit of the Institute of British Architects, whether they were in search of examples or of warnings. I cannot suppose that I have been honoured by an invitation to propose this toast because I have been a benefactor of architects. I have always contrived, with very minor exceptions, to keep my own hands out of the mortar pot, but I have had professionally and judicially a good deal to do with architects. I cannot say that the questions which I have had to canvass are of a very distinctively æsthetic character. Such questions as I have been familiar with are, to take an illustration, suppose an architect is invited to prepare plans and specifications for a building, and that building is not proceeded with, is the architect entitled to commission upon the prospective cost, and, if so, what rate ought that commission to be allowed. In the course of my professional experience with architects I have been struck by the circumstance that they appeared to be singularly forgetful—I am not speaking of English architects, because my experience is limited almost exclusively to Scottish architects—but Scottish architects, when they prepare plans and specifications and submit estimates of costs, always forget the architect's fee. I call it forgetfulness, but perhaps it is modesty. All these are sordid matters, however, and I would rather address myself for a moment to a more idealistic aspect of the architects' profession. Architects are all striving after two ideals—utility and beauty. Now it is an interesting question whether these two are coincident. It is quite easy to make them coincident if you make beauty synonymous with utility. That is an easy thing, but it involves a certain abuse of language. Look at me, for example. I am a fairly useful judge, I am a fairly useful citizen, I am a fairly useful Churchman, I am a fairly useful shot, but nobody could, without perversion, describe me as beautiful. (Laughter.) Accordingly, if you address yourself to the consideration of the two words utility and beauty, and attach to each their ordinary meaning, I am afraid you cannot give an affirmative answer to the question whether utility is always coincident with beauty, but, mark you, one must not go to the opposite extreme and suppose or imagine that there is any antagonism. If you see a singularly ugly house there is no presumption from the ugly exterior that internally it is a most convenient and commodious house. On the contrary, there is a certain presumption that it is not so, because the architect who designed such an ugly exterior is not very likely to have designed a comfortable and commodious interior. But whilst that is so, and whilst one cannot affirm that utility and beauty necessarily go together, I think that one must recognise that the necessity to adapt a building for certain purposes may furnish inspiration in the creation of the beautiful. Take our English cathedrals. I do not know if it will be universally admitted, but it is certainly my own opinion, that these are the most beautiful buildings in England, if not the most beautiful buildings in the world. Now these buildings were gradually evolved. The original idea when churches, from which cathedrals arose, were built, was not the designing of a beautiful building but the designing of a building suitable for certain forms of worship and for certain rites and ordinances, and to that came to be superadded the idea of the necessity of conforming with certain rules of symbolism, and so the cathedral arose. Now I beg you to assume for a moment that we had no churches and no cathedrals, and that you invited all the most distinguished architects in the country to furnish designs for a beautiful building without regard to any purpose to which that building might be put. I have no doubt that you would get many beautiful plans and designs, but on the supposition which I put that we knew nothing of churches and cathedrals, I venture to think that none of these buildings would have the remotest resemblance to one of our cathedrals, and I venture to add that not one of these buildings, great as is my respect for the ability of the architects of the present day, could compare with one of our ancient cathedrals. In the evolution of the cathedral the necessity of designing buildings adapted for certain purposes and to conform with certain rules of symbolism has been an aid, and not a hindrance, to the inspiration of the architect. It is the same in poetry. The metre and the rhyme one might regard as a hindrance to the free stirring of the imagination, but it has not been so so far. On the contrary, they have been found to be a source of aspiration and of imaginative development and expression, and so it is in architecture. The necessity for conforming with certain purposes, certain ideals, certain symbolism, has been an aid and not a hindrance to the development of architecture. (Applause.) These, however, are high and difficult subjects, perhaps hardly appropriate to an after-dinner toast. I revert to my proper subject, the Royal Institute of British Architects, the corporate organisation of the architects of this country. Now the architect has a certain advantage over my own profession, over the medical profession, over many other professions, a certain advantage and also a certain responsibility. In my profession, in the medical profession, and in many other professions, one may say it will be all the same a hundred years hence, but the architect cannot say that. His work is enduring. At all events, it is enduring if he works with Aberdeen granite or British freestone. I am not quite so sure about reinforced stucco. The work of the architect is enduring, and I sometimes regret that the Scottish architects of the eighteenth and early nineteenth centuries did not more fully realise this truth. There is perhaps only one order in the community that can claim an immortality greater than that of the architect. I mean the poet. Architects who are here present will take some consolation in the fact that poets in the present day are so scarce that their claims to superior immortality need excite no jealousy. The Cenotaph in Whitehall, with all its dignity, cannot be regarded as a great architectural achievement, but I venture to predict that that Cenotaph will outlive all the poetry that has sprung from the late European War. I appreciate the honour of being invited to propose this toast, and I have special pleasure in coupling with it the name of such a distinguished member of the profession of architects as occupies the chair to-night. (Applause.)

Mr. P. Waterhouse, in reply, said: I feel sorry about Lord Sands. I have been looking at his face, and thinking it was just the kind of face I should like to have, and with it utility. I can cheer Lord Sands, not perhaps on the subject of his countenance except by what I have already said, but by telling him that I have a judge in my family who told me what he considered to be the invariable rule about architects' professional estimates. Take the architects' professional estimates, he said, multiply the same by two, deduct a penny, and you get the cost of the building. But, Lord Sands, we are in the Modern Athens, not the Modern Ephesus. In Ephesus there was a law relating to approximate estimates. There were no quantities in those days. If a man's approximate estimate was higher than the cost of the building the architect was given a golden crown. If it came to be within five per cent. of the cost of the building nothing was said. If it were found that his approximate estimate was grossly under the cost of the building a very simple procedure was carried out. He was sold into slavery with his wife and dear little children. It was not for nothing, the President went on, that we men of England joyfully accepted the invitation to have the Conference in this city. We know where good fellowship is to be found, good fare and good will, and we have come here to enjoy those things. You sometimes come South to share our toil, our remunerative toil. I come here joyfully to share your pleasures. I am very proud to have been the President of the Institute. A man would be a fool if he were not proud to have occupied such a position. It has been a special gratification to me to realise that your Incorporation has pulled itself through during my Presidency. I cannot say that, personally, I have had much share in the pulling through, though I was able to give a push to a boulder which I found in the solicitor's office. In doing honour to us you have at the same time recognised, through the R.I.B.A., the supremacy of Britain for the moment. Nobody can quite know how big an affair the R.I.B.A. is unless he has been a President or one of the secretaries of the Institute. He cannot have the faintest notion of what the Institute really means, not in Britain only, but in the world. It is astonishing to me—and very many things which come into the President's hands do not find their way into the ordinary printed records of the Society—to realise that the man who stands for the moment as President is in the position of being virtually the President of a Republic on which the sun literally never sets. From all over the world we get correspondence. Sometimes it is worry, sometimes it is congratulations, and sometimes it is merely a show of pure affection. I am about to be succeeded by one who is, I may say, more lion-like than I am. At all events he is more the colour and size of a lion than I am. (Laughter.) I shall retire in a few weeks into the publicity of a private practice, and a new man will reign in my stead, and I desire to commend Mr. Gotch very warmly to you. I happen to be very much interested in architectural education. I am going to spend the next week in examining Scottish schools, a pursuit which is always one of peculiar pleasure to me. I know beforehand what I am going to see—good work, good teachers, and diligence. I want to say this about education in architecture, that it cannot go on without the cordial goodwill of the architects who practise in the places where the education is going on. Nowhere more than in Scotland is that goodwill seen so abundantly. Wherever I go I see that the architects are the friends of the young men in this matter of education. That means a great deal even now, and it has meant a great deal in times past. Our fathers did a great deed and made a great sacrifice when they realised the time had come for systematic education for young architects. To put the matter on its lowest level, it meant giving up fees. That generous spirit, that national spirit, has gone on increasing, and I heartily congratulate Scotland on her work in that direction. It will not have escaped your notice that there has been an election. You will treat me, I hope, merely as a fellow-voter for the moment. It is quite an embarrassing situation, and I hardly know where to begin, but I am going to begin with congratulations. I do so for this reason, not because I have taken sides or displayed any animosity, or that I want any animosity in which anybody should take sides. That this Institute should have parties within it is not only unreasonable but absurd, because we have only one object, the advancement of architecture. Of course, differences of opinion must arise as to how certain results are to be achieved. What I want to say is this, and I say it without casting any reflection on anybody's conduct or character, that I believe we shall never attain any influence whatever in our great and glorious Institute unless we fervently and stedfastly make up our minds that we shall always fill our Council and the Presidential chair with persons who we think are reasonably representative of the forefront of architecture. I know it is a case of glass houses for me to talk like that, having been a Member of Council for so many years, and having occupied the Presidential chair, a post which, I may add, I never sought, though it was a great honour to have filled it. I am sure you don't mind my speaking in this way. I have it so very deeply at heart, and hope that in the future—I say this without any reference to any person, including myself—we shall make it our primary object to see that our Council is filled with men of known position in the world of architecture. It may occur in the future that there is a wish to put in persons representing minor matters on any small question in dispute. That will not succeed. The Institute is too big a body for that kind of thing to be expected to succeed. Remember it is world wide, remember it covers Britain. We must make perfectly sure that we put men there whom we feel will represent not a particular view on a particular subject but architecture. Before sitting down let me add a word about the Incorporation of Architects in Scotland. I wish it the longest possible life, every kind of prosperity, every happiness, and every success.

Lord Alness proposed the toast of "The Incorporation of Architects in Scotland and the other Allied Societies."

Mr. T. P. Marwick, President of the Incorporation of Architects in Scotland, replying, said: The Incorporation, though young in years, had already well over six hundred members. Over one quarter of their entire capital had been dedicated to educational purposes. In conjunction with the other beneficiaries they had assisted in the publication of the recently issued beautiful book of measured drawings of Scottish Domestic Architecture. They were working in conjunction with the Board of Trustees for the National Galleries of Scotland in the publication of the National Art Survey Drawings. They purposed, if possible, proceeding with the completion of several hundred drawings partly prepared, and such additional drawings as may be required to complete the survey of every important historical and architectural monument in Scotland. They had commenced the publication of a quarterly magazine; they had a Benevolent Fund to help those who fall by the way; and in other fields of endeavour they were trying to do good work for the community and for the advancement of the art of architecture. They were taking preliminary steps to obtain a University Degree in Architecture, and matters are well advanced for this in Glasgow. In the Edinburgh Chapter a special committee will suggest a series of existing classes in the University, Heriot-Watt Technical College, and the College of Art, so as to form a School of Architecture. They believed this could be done, and by adding lectures in Civic Design and professional Practice it would make a complete course. The Incorporation were also anxious to assist in closing the door to the practice of architecture by the unqualified. They considered that architects require as much education and ability as those who practise law or medicine. The Incorporation existed at present solely as a consultative and administrative body, and its formation ought to give the profession in Scotland a solidarity, force and influence which at present it only possessed to a limited degree. This influence they hoped to be able to utilise in fostering the growth of our towns and villages on artistic, practical, and sound financial lines, in developing the æsthetic sense of the community, and in endeavouring to arouse and widen public appreciation of architecture. The enlightened public in the city of Edinburgh in 1767 were in advance of the public of to-day. They knew and appreciated good work so highly that they actually gave the freedom of the city and a gold medal to the architect who won the competition for the lay-out of the New Town. The present-day apathy of the public is so great that such happenings are inconceivable. He could assure them that the members of the Incorporation of Architects in Scotland were inspired by high ideals. High ideals were a pre-potent influence in the spiritual and intellectual progress of a nation. They intended to work, so far as they were able, for the realisation of these ideals, and, while progress might at first be slow, they were encouraged by the knowledge that the ideals of yesterday become transmuted into the actualities of to-day.

Mr. Francis Jones, President of the Manchester Society of Architects, who also replied, said that in the first place he should like to say something about the elections to which the President referred. Those elections had resulted in a clean sweep of the old Council. All he wanted to say about that was that they had not finished by making a clean sweep of the old Council. It was now up to the new Council to get inside the Institute that unity which will prevent any repetition of what had occurred in the last two years. Mr. Marwick represented, one might say, the unity of Scotland. In other words, the allied Societies of Scotland. The Royal Institute represented not only the combined allied Societies of England, but also the combined allied Societies of Scotland as well, so that they had the whole body of British architects in the Institute, and in that body they had to preserve a united front, or else they could do no good.

Mr. Francis Jones concluded by calling for three cheers for the retiring President. Sir Robert Lorimer, in proposing a vote of thanks, paid a notable tribute to Mr. Waterhouse for his great services to the Institute during his two years of office.

The following are notes from the Minutes of the Council meeting held on May 28:—

Competitions.—It was decided that members and licentiates of the Royal Institute must not take part in the following competitions:—Fauldhouse Infant School competition; Yeovil Burial Ground Lay-out Competition; Largs Pavilion competition.

St. Paul's Cathedral Fund.—A cheque for £300 was sent to the Dean and Chapter of St. Paul's Cathedral as a contribution to the Cathedral Fund. This sum represents the amount raised by the R.I.B.A. and the allied societies.

Loan Library Catalogue.—It was decided to complete and print a new edition of the Loan Library Catalogue.

Middlesbrough.—The County Borough of Middlesbrough was transferred from the Province of the York and East Yorkshire Architectural Society to that of the Northern Architectural Association.

Reinstatement.—Mr. Cecil A. Sharp was reinstated as a Fellow of the Royal Institute.

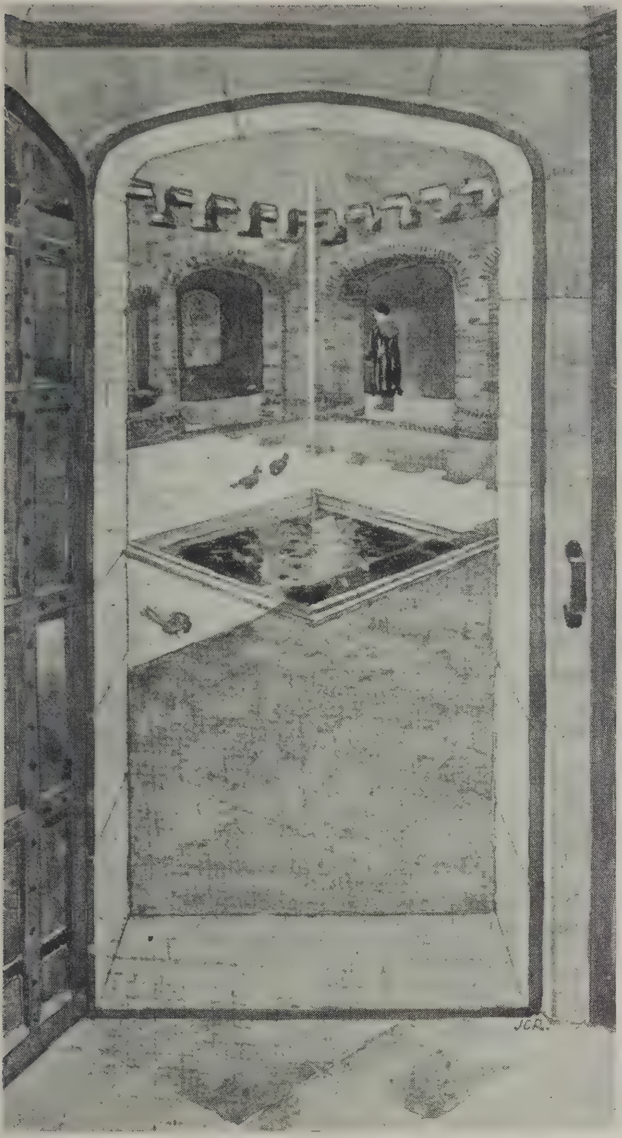
Retired Fellowship.—Mr. E. H. Bourchier was transferred to the Class of Retired Fellows.

Victoria and Albert Museum.

The Victoria and Albert Museum has recently acquired a particularly fine group of Chinese lacquered furniture, which has now been placed on exhibition in Room 41. The principal piece is a Throne or Chair of State, 4 ft. 6 in. by 4 ft. 8 in. in area and 4 ft. 8 in. high, richly lacquered in *aubergine* and decorated with bats, various flowers and floral scrolls and conventional dragons in vermilion, deep red, blue-grey, white, etc. The back and arms are of elaborate openwork, with finely carved and lacquered flowers and foliage within squared strap-work; and the foot-stool is of black lacquer with floral and other ornaments in colour. At the same time, the Museum acquired a small table and two chairs in exceptionally good vermilion lacquer, also decorated with bats and floral scrolls in olive green and other colours, lined with gold. All these objects came from the Palace of Nan-Haidze near Peking. The throne is attributed to the period of K'ang Hsi and the other furniture to that of K'ien Lung, and they were almost certainly made in the Imperial Lacquer Factory established by the first-named Emperor.

The gilt *torchères* in the style of Robert Adam, recently purchased at the Brownlow sale, are also now exhibited in Room 58 of the Museum.

The Barnsley Town Hall Committee reported last week to the Town Council that they had considered a number of questions affecting the proposed Town Hall, and recommended that the site be so arranged that the centre faces Regent Street, and that the Town Clerk and the Borough Engineer and Surveyor prepare a statement showing the property required. The Council approved the proposal. At the same meeting the Council accepted the tender of Messrs. W. Dunk & Sons to erect 36 houses on the Willthorpe Estate for £12,590.



IRONMONGERS' HALL, ALDERSGATE—THE FOUNTAIN COURT. Sydney Tatchell, F.R.I.B.A., Architect.

The New Ironmongers' Hall.

It is with great pleasure we publish the design for the new hall for the Ironmongers' Company in Shaftesbury Place, Aldersgate, the foundations for which building have just been laid. Too often the livery companies have been satisfied to sell the sites of their halls without rebuilding, until only some 35 of them have permanent places of meeting. The last case in point is that of the Curriers' Company, which was recently sold, while the Pewterers' Company let their old and interesting hall as a warehouse and have been content to meet in a commonplace courtroom in Lime Street. In this instance, however, we believe there is a possibility that the old hall may be again used for its original purpose. The former hall of the Ironmongers' Company only dated back to 1750, though a building had stood on the site since the fifteenth century, so that the associations of the Company with the site had lasted for the best part of five hundred years. It was a building of considerable charm and picturesqueness, though the hall itself was an example of "make believe" Elizabethan design, a fact which has doubtless influenced Mr. Tatchell, the Company's surveyor, with the choice of a Tudor design for the new buildings.

Mr. Edwin T. Hall, V.-P., R.I.B.A., died leaving estate to the value of £44,848.

The Manchester Housing Committee has accepted tenders for the erection of 600 additional houses on the Wilbraham Road Estate, and 90 on the Newton Heath Estate.

The Sheffield Estates Committee propose to commence the preparation of schemes for the erection of 2,000 working-class houses in suitable instalments by October 1, 1925. The decision has been made in view of the provisions of the Housing (No. 2) Bill.

"The Architect" Fifty Years Ago.

June 21, 1873.

Light and Air Cases.

Very solemn reflections will no doubt be suggested to not a few of our readers by the title of this article. Probably there is nothing else in the whole range of the architect's practice which he finds to involve him in such serious difficulties, whether in actually building, or in advising a plaintiff, or in assisting a defendant. The law upon which the whole question turns is, if we understand aright, peculiar to England—well known to be, in many another matter besides this, the paradise of vested interests. That melancholy pleasantry "the glorious uncertainty of the law" seems to find especial illustration in the dark and stifling regions of "light and air." Perhaps no architect who has had his building ruthlessly sliced down to an angle of 45 degrees could ever by any means clearly understand why this should have been desirable for the interests of society; and in like manner, when a professional brother is haunted by the recollection of the aid which he more or less reluctantly afforded in the slicing down, it is seldom probably that he can see so plainly as he could wish the urgency of the necessity for spoiling the cherished design of a *confrère.*

Competition News.

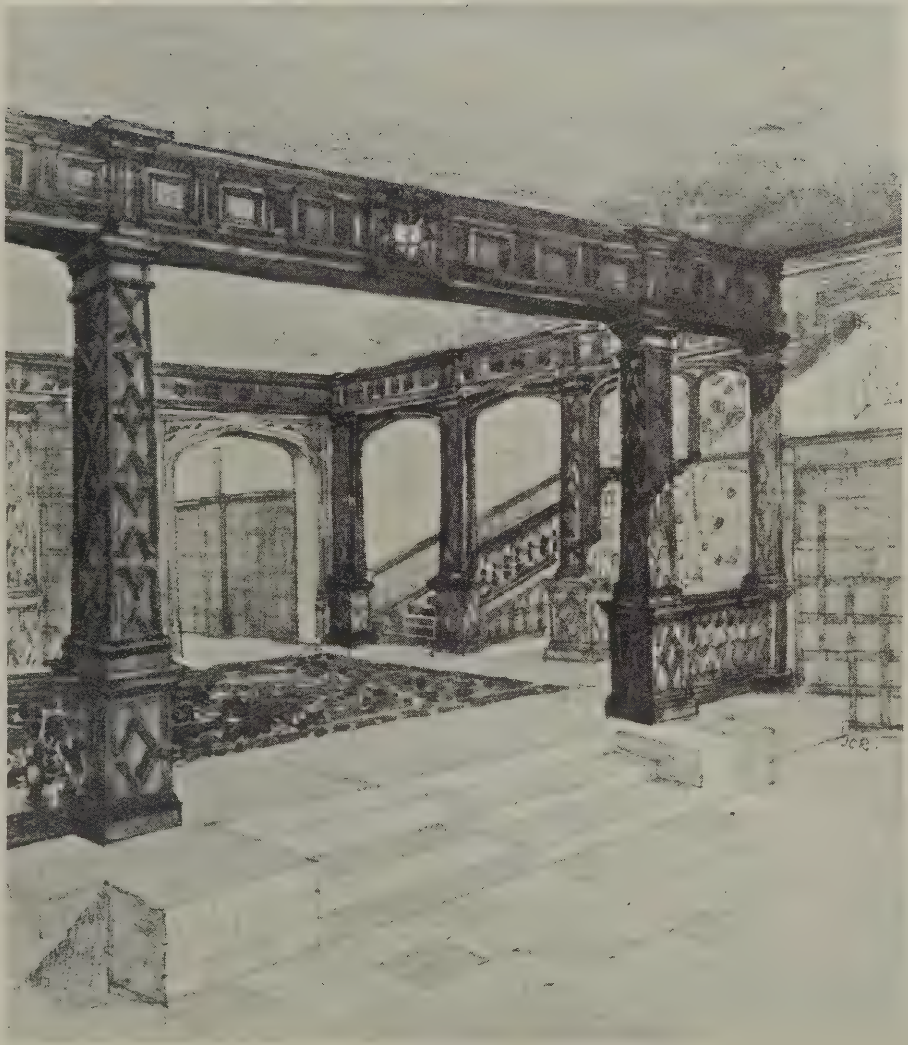
The Slough Urban District Council invite architects who are willing to join in a limited competition for the lay-out and development of a site providing for the erection of Council offices, shops, etc., to send in their names to the Clerk by noon on July 5, together with particulars of their experience and illustrations of their work, or such other information as the candidate may think likely to advance his claim to be admitted to the competition. Each selected competitor will receive a specified sum for his design.

The Lord Mayor and Corporation of the City of Hull invite designs for the erection of a cenotaph on a site in Paragon Square belonging to the Corporation. Conditions of the competition, together with a plan of the site, will be supplied by the Town Clerk on receipt of one guinea, which deposit will be returned to competitors on receipt of a *bona-fide* design. The estimated cost of the work amounts to £4,000, and premiums of £150, £75 and £50 are offered for the designs placed first, second and third respectively. The assessor is Mr. Stanley Hamp, F.R.I.B.A., whose decision will be final.

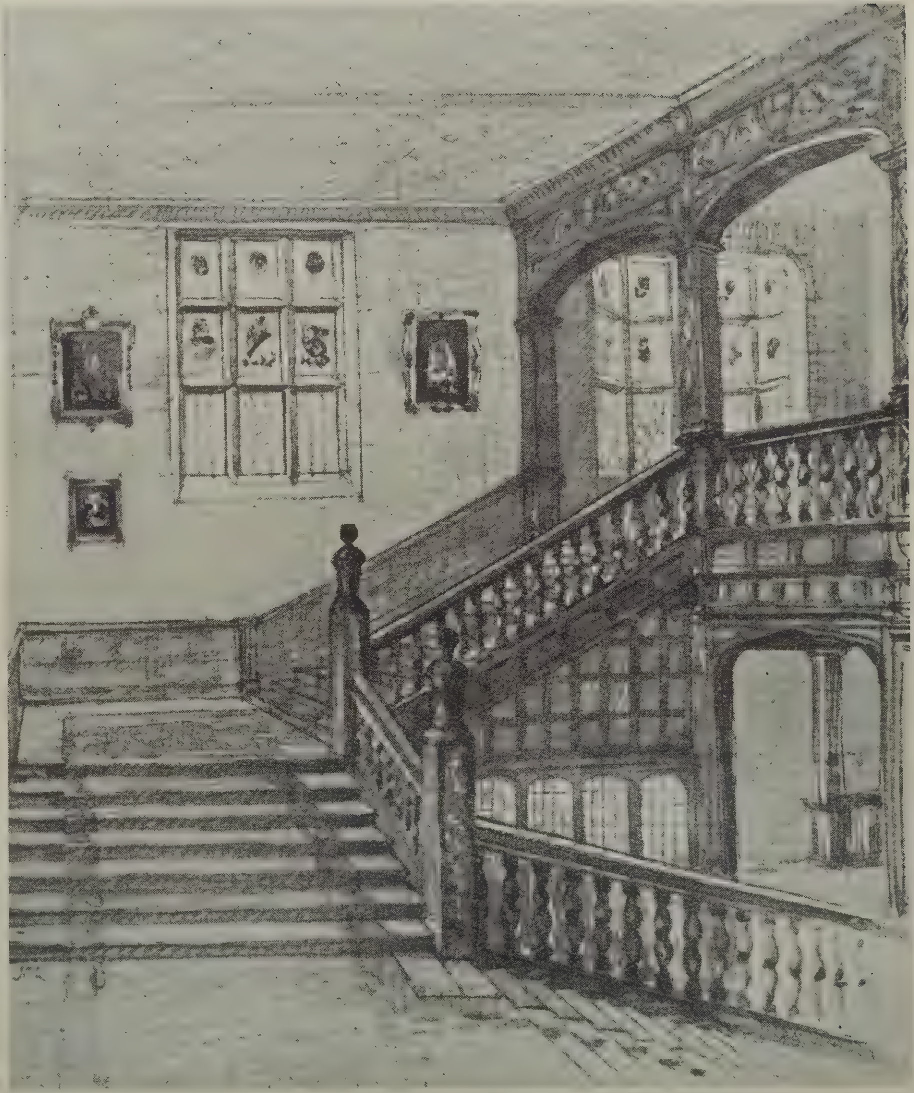
Members and Licentiates of the Royal Institute of British Architects must not take part in the proposed Sunday School Competition, Twickenham, because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions. A similar warning has been issued by the Society of Architects.

Invitations have been extended by the Temple Committee of the Provincial Grand Lodge of Warwickshire Freemasons to architects who are subscribing members of lodges in the Province of Warwickshire to submit designs for the proposed building of headquarters for the craft on the site in Broad Street, Birmingham. The Temple Committee of the Provincial Grand Lodge of Warwickshire have charge of the matter. Sir Banister Flight Fletcher, F.R.I.B.A., F.S.I., has been appointed assessor, and his award will be final and binding on the committee and the competitors, and the author of the design placed first will be awarded a premium of £500, and those second and third £300 and £200 respectively. The committee will exhibit the whole of the designs sent in after the award has been made. The building must be of stone, facing Broad Street, and must provide four lodge rooms—one to accommodate 150, with provision for organ chamber; one to accommodate 80 and one 50; and one adaptable for Rose Croix working for 30. Each lodge room is to have an ante-room and a compartment for candidate. The area of the lodge rooms must be so arranged as to give ample width for ceremonies when the sitting accommodation is at its fullest capacity. Four banqueting and dining rooms with the same capacity, and it is suggested that one of the smaller dining rooms should be arranged so as to enable it to form part of the banqueting room if necessary. Four committee rooms, private room for provincial grand master, offices for provincial grand secretary, clerk and steward. Masonic museum and library, members' common room, ample entrance hall, kitchen to cook for 350, wine cellar, quarters for staff, and other offices. The competition closes on September 12.

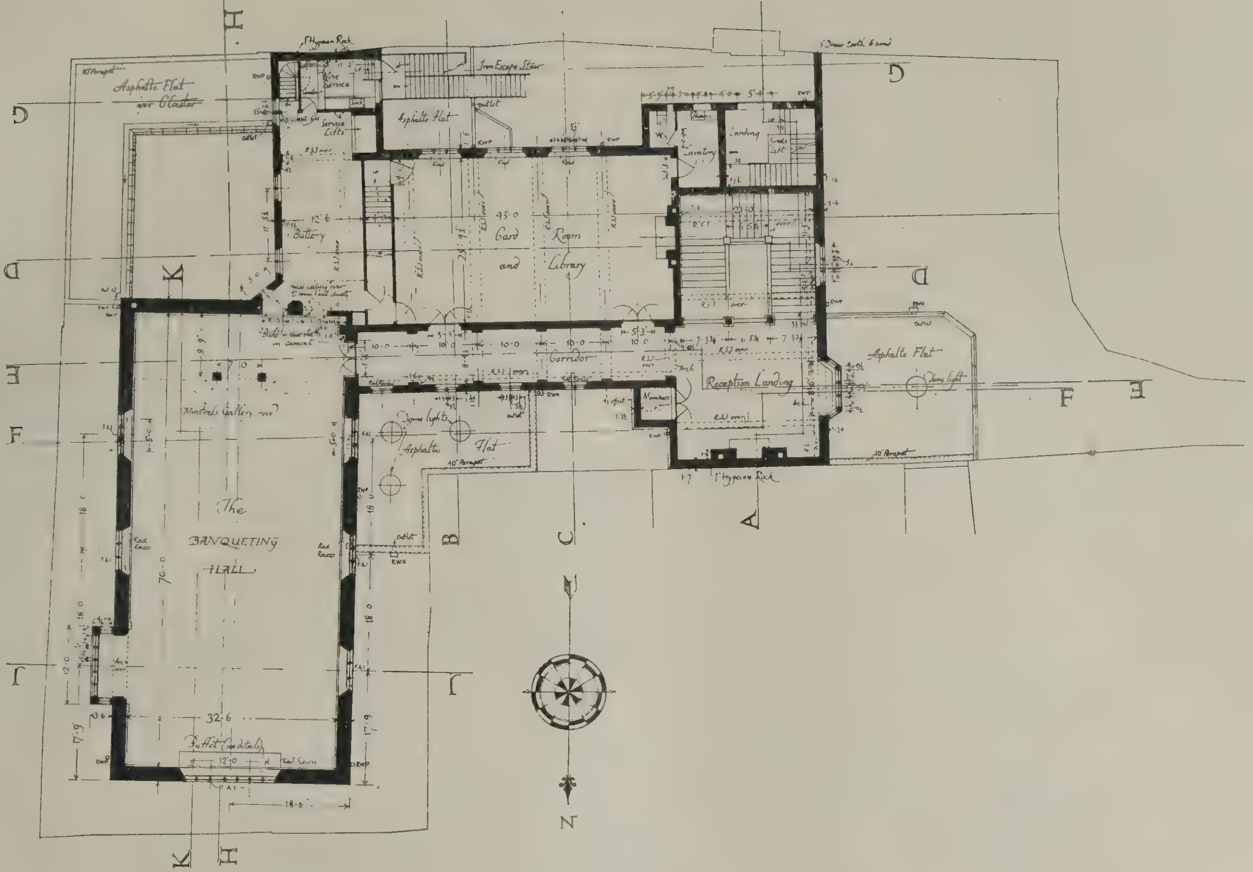
Housing schemes have been decided upon during the past few days by numerous local authorities. Among them are the following: Wath-on-Dearne (62 houses), Nantyglo (20), Newport (38), St. Helens (20), Burton-on-Trent (56), Hereford (54), Carlisle (200).



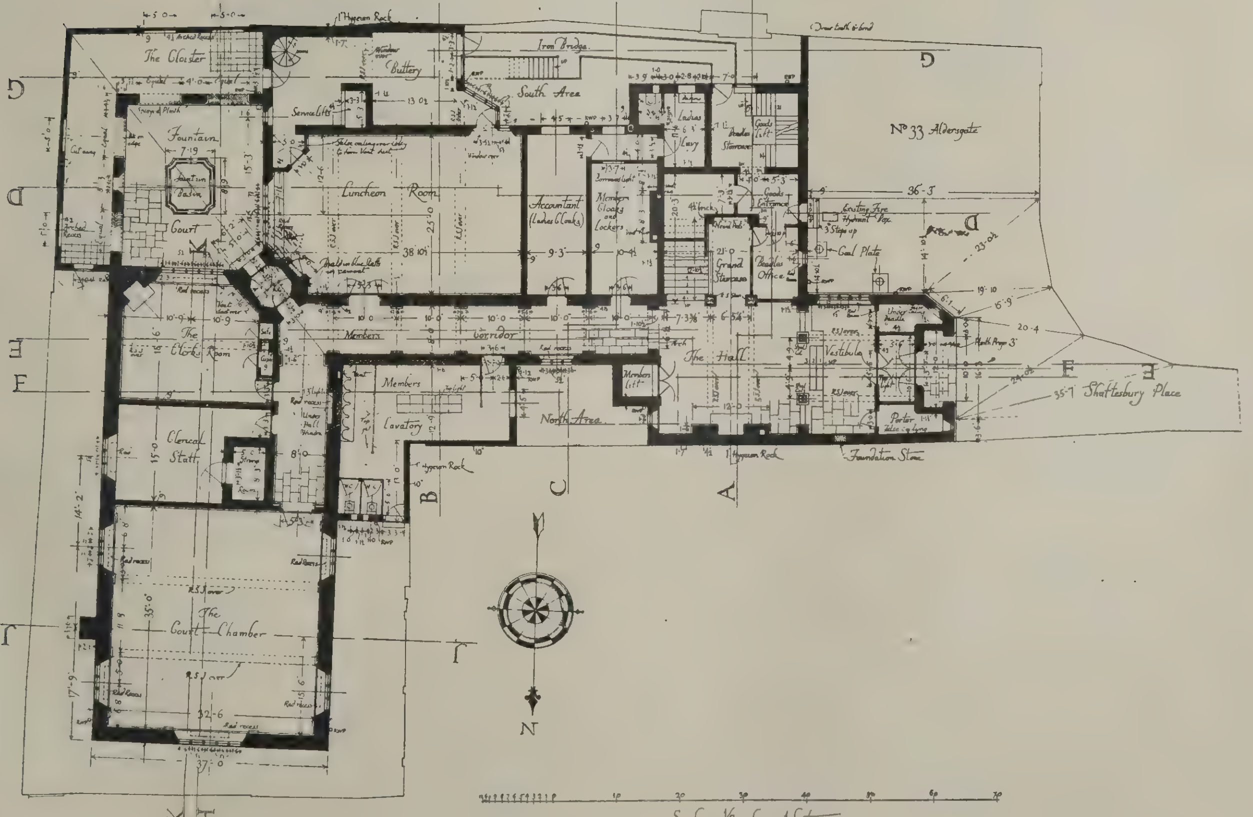
IRONMONGERS' HALL, ALDERSGATE.—THE ENTRANCE HALL.
SYDNEY TATCHELL, F.R.I.B.A., Architect.



IRONMONGERS' HALL, ALDERSGATE.—THE GRAND STAIRCASE.
SYDNEY TATCHELL, F.R.I.B.A., Architect.



First Floor Plan



Ground Floor Plan.

IRONMONGERS' HALL, ALDERSGATE. SYDNEY TATCHELL, F.R.I.B.A., Architect.

Homes of the Clergy.—II.

By Charles G. Harper.

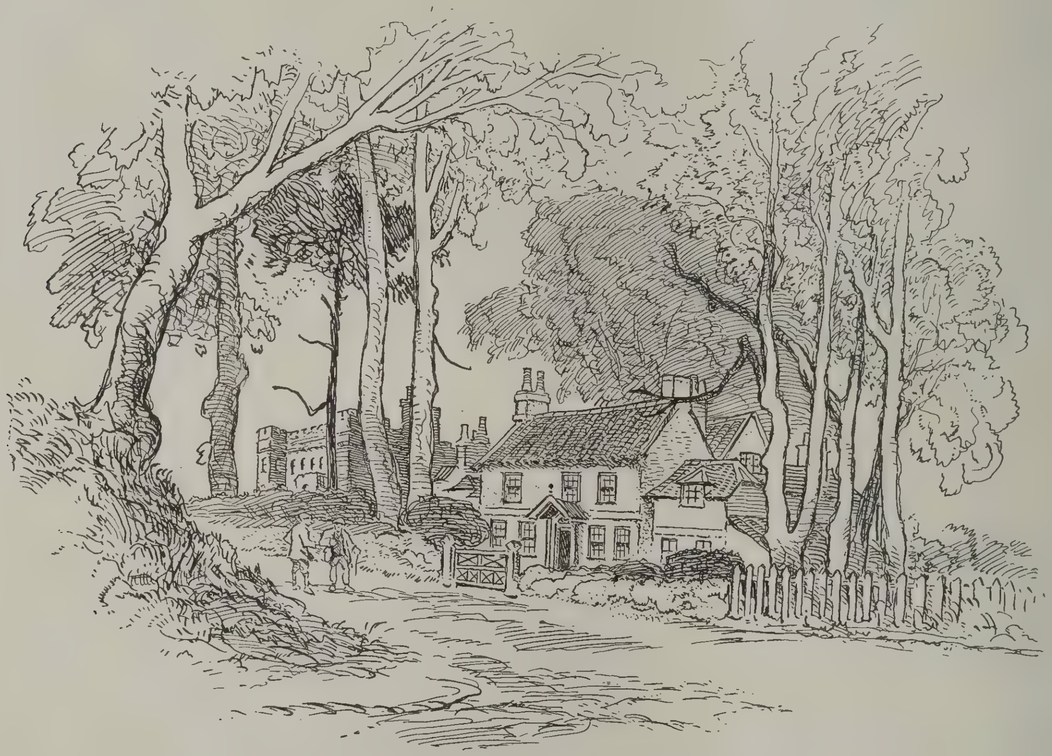
We are on definite and well-ascertained ground when we come to Somersby, in Lincolnshire, and visit there the birthplace of Tennyson. This is the old rectory, where the poet, a son of the rector, the Rev. George Clayton Tennyson, was born in 1809. His father was rather great as a pluralist, being also rector of Bag Enderby, and vicar of Great Grimsby with Beniworth. He was a mediævally minded scholar, and added to the modest rustic rectory-house of Somersby, a building of whitewashed brick and red pantiles, the strange annexe seen on the right-hand side of the view of the garden front. It was designed by himself and was built by his own hands and those of his gardener, in a manner fondly but vainly thought to be Early English. Ecclesiastical-looking though it be, it was the dining hall. The weathering of a century has mellowed its tiles, and generally given a kind of antique appearance, but the materials are so flimsy and the workmanship and design are so amateurish that the thing is seen on inspection to be a horror—not in drawings, and especially not in photographs, which inevitably flatter in such cases, and give an appearance of authenticity that is entirely illegitimate. This back view of the house is ever, and solely, the one taken, and never a front view, a consideration which impelled me to make a drawing of the front from the road. I venture to say that the front view gives you a far better impression of what the house and its surroundings are than any illustration of the back and the old rector's silly sham mediæval fantasies can afford; and it shows you, too, how that grim old eighteenth-century red-brick house that was "Baumber's Farm" neighbours it on the left. That house is said to have suggested the "Moated Grange" of Mariana to Tennyson. By tradition it is one of Vanbrugh's heavy works.

The Tennysons never revisited Somersby when they left it in 1837, six years after the old rector's death. Some years ago the house was sold into private ownership, and is no longer the rectory. The present owner appears to be somewhat worried by the stream of Tennyson pilgrims who day by day seek admission to house and garden, and he exhibits notices declaring that absolutely no admission is granted except on one day in the week—on a Wednesday, if I recollect aright. It is no pleasant thing to inhabit a house made famous by historical happenings or literary personages, and I should myself resent the implication that visitors have a prescriptive right to admission. The easiest way to dislike Tennyson and his works would therefore seem to be resident in his birthplace.

The old rectory of Beaconsfield, a red-brick and timbered house of the first half of the sixteenth century, was restored in 1901 by the late Lord Burnham, and is now a church-house, at the western end of the church. It is seen in the background of the illustration here. The obelisk monument in the foreground is that to Edmund Waller, the seventeenth-century poet, who died at Hall Barn in 1687. His "canting," or punning, arms are three walnut leaves. The great tree over his grave is also a walnut.

The social position of the beneficed parochial clergy, whether rectors or vicars, improved enormously at the Reformation. Many of the rectories and vicarages date from within a century of that great change. The clergy became not merely ministers of religion who had, apart from their sacerdotal status, the one advantage of being able to write, but were really in general men of culture and university training; and they took that rank with the squires which ever since they have held. They consorted with the county families on equal terms. A good many, indeed, among them were "squarsons"—squires and parsons too. Rather scandalous persons, some of them, of the ferocious and blackguardly type of "Parson Froude," of Knowstone, Devonshire. The Rev. John Froude held that living, in succession to his father, from 1803 to 1852, when he died, leaving a reputation which yet stinks. He is enshrined as "Parson Chowne" in Blackmore's "Maid of Sker." Not so black, but yet a cause of scoffing, was the Rev. John Russell—commonly called "Jack Russell"—who was born in 1796, for many years vicar of Swymbridge, in the same shire, who died in 1883. He was of the now extinct type of hunting parson, and was not greatly to be trusted when it came to buying or selling a horse.

For this kind of cleric, in those and earlier years, was built that typical eighteenth and early nineteenth century parsonage, with great stables and immense dining rooms, which has become in these latter years an absolutely disastrous encumbrance. No clergyman to-day can,



SOMERSBY RECTORY: BIRTHPLACE OF TENNYSON.

unless he be possessed of private means (and extremely large means too), afford to accept the offer of a living burdened with one of these vast houses and its almost park-like grounds. For there is not merely the question of annual value of the living whereby such houses and establishments can be maintained (or to-day *cannot* be maintained), but there comes inevitably that day when the question of "dilapidations" has to be faced, either by the incumbent himself or, in the event of his decease during his incumbency, by his family or executors. Diocesan surveyors ever have had an exceedingly magnificent idea of dilapidations.

THE OLD RECTORY, SOMERSBY: GARDEN FRONT.

Until these lean latter years came, leaving the clergy to subsist upon what is now an uneconomic income, the typical country parson's life seemed—and probably was—an entirely enviable one. Such a man was generally looked up to and respected by all in his parish. He was welcome in hall and cottage. He yet is. He was, not uncommonly, by far the most learned and generally cultured person in that neighbourhood; and, if of long residence, was perhaps the repository of the local archæological and historical lore. He was not worn with anxieties, and, as actuarial figures showed, his expectation of life was not bettered by any class in the community. The records of very long incumbencies are extensive. The longest reported holding of a single living is the rather remote instance of the Rev. Richard Sherington, who is stated to have been vicar of Folkestone from 1524 to 1601—seventy-seven years. The Rev. William Davies, said to have been 105 years of age at his death in 1790, was in Holy Orders for eighty-two years, and successively rector of Staunton-on-Wye and vicar of All Saints, Hereford. In 1889 died the Rev. Bartholomew Edwards, rector of Ashill, Norfolk, who had held that living from June 28, 1813—seventy-five and a half years. When he died he was within ten days of his hundredth birthday. On November 16, 1912, died the Rev. W. W. Wingfield, who for over seventy-three years, from May, 1839, had held the living of Gulval, near Penzance. He was in his 98th year. Many other almost as lengthy incumbencies might be cited.

THE CLERGY HOUSE, BEACONSFIELD.

While the social status of the clergy has certainly not of late years declined, their worldly circumstances—in the sense of income not being sufficient to stand the stress of these times—have derogated from their leisured ease. Livings (the term has become an irony) once eagerly sought are now on all hands declined, through sheer inability to maintain those "white elephants" of the Church, the great houses which in some cases rival the homes of the landowners themselves. Some two years ago the "Guardian," the foremost Church newspaper, instituted an enquiry as to these now unwanted great mansions, and gave numerous instances. In the case of those whose names and localities were withheld, these are not worth quoting, but specific examples are to the point. Thus, the vicarage of Burrington, in the diocese of Bath and Wells, has an income of £120, with a very large house, stables and expensive grounds. The vicar, *before* a recent increase in rates, was rated at £80 on the house alone. Although £20 per annum had been expended on repairs, an impending bill of from £400 to £500 had to be faced. In the same diocese is the living of Pill. The vicarage was originally Heywood Hall. In this house, during the late war, it was found possible to billet 50 men without disturbing more than one of the ordinary living-rooms. The gardens cover three acres, and include a hothouse. The net value of the living is £250. Wacton, in Norfolk, is a living worth a little over £300. The parsonage-house has about twelve bedrooms, and stands in large grounds. Woolley, in Huntingdonshire, is worth but £57, and has a large house. The living has been vacant for several years, no one being prepared to accept it, owing to the heavy dilapidations. Feltwell, in Norfolk, has a good income, £800 per annum, but it is greatly insufficient for the upkeep of the house, which has 20 bedrooms, and stands in grounds of between four and five acres. Sutton's income is £1,129, but the house has 14 upstairs rooms, garden of over three acres, outbuildings, and stables; while the living is charged with a pension of £325. Further, a sum of £200 is paid for a curate.

Not all these great parsonage-houses are relics of the fat times of great tithes and much display. A good many of them are the results of Bishop Wilberforce's encouragement to the clergy of some fifty years ago to build such houses or add to small ones with a view to their taking pupils as an addition to their income. A result which surely might have been foreseen is that in very many cases the successors of those clergy have neither the wish nor the opportunity of taking pupils, and that the houses so enlarged have become, not assets, but extremely embarrassing liabilities. The further consideration will arise in the minds of many: is it entirely right that the beneficed clergy, although by their attainments peculiarly well qualified for teaching, should devote a great part of their time to a secular employment which certainly is not contemplated in the terms of their office?

(To be continued)

Messrs. George Saul & Sons, of Rotherham, have had their tender accepted by the Rotherham Borough Council for the erection of 56 houses in the Sheffield new road, the price being five blocks of four at £1,225 per block; and six blocks of six at £1,850 per block.

There was an unusual number of distinguished recipients of honorary degrees at Cambridge University on the 12th inst. The list included the Prime Minister (Mr. Stanley Baldwin), Viscount Grey of Fallodon, Field-Marshal Lord Plumer (Governor and Commander-in-Chief at Malta), and the President of the Royal Academy (Sir Aston Webb). Sir Aston Webb was presented to the Vice-Chancellor by the Public Orator as the son of a distinguished painter, who took to the pencil, and planned palaces and museums. The Palace of the King himself knew his hand of genius, and in Cambridge his work was to be found, with its marks of clearness and simplicity.

Correspondence.

Sculptor's Name on Memorial.

To the Editor of THE ARCHITECT.

SIR,—*Re* the discourteous objection of the Broadstairs and St. Peter's War Memorial Committee to the sculptor's name in the usual place on the back corner plinth of his work. This is an outrage against the privileges and rites of antiquity.

The architect, sculptor and artist, from another point of view, are professional men, and as such are unable to use the usual means of advertisement open to other classes of society.

To a member of the public it gives great pleasure on seeing a delightful piece of work or otherwise to wander round to the usual corner for the information as to the name of the artist, to exult in his success or commiserate in his failure, and it is a great loss of time and an annoyance to have to ask for information that nobody seems to possess or to look through musty records to find the creator of such works.

Signing of buildings is another subject that needs attention. It should become compulsory by law for architects to sign their buildings, in the usual obscure but yet effective corner, so that it may be a warning to the temerity of those unaccomplished persons who dare to profane our cities with monstrosities. By-laws are for this purpose, but public opinion is stronger, and until we demand this point by law we shall not get a national architecture again which shall be the glory of England as Greek architecture was the glory of ancient Greece, where the populace came in the evening time to see the progress of the monuments which are to-day the wonder of the world.

Lord Sumner, Lord Burnham, and many others as laymen have "come out into the open" to express their opinions on architecture, also on the apathy of the public and press toward the above, and desire thereby to strengthen public opinion in the planning and building of our cities, which is so important a factor in the virility and health of the nation.

May I repeat what has been suggested to me by several architects—viz., that the R.I.B.A. issue an instruction to architects to sign their works, and when a client has from penurious or other reasons spoilt a plan or façade, this forfeits the hall mark—*i.e.*, the signature of the architect.—Believe me, yours sincerely,

93 High Holborn, W.C. ANDREW WILLETTS.

Institution of Sanitary Engineers.

A general meeting of the above society was held at the Holborn Restaurant, Kingsway, W.C., on June 15, Mr. H. C. H. Shenton, F.S.E., M.Inst.M. and Cy.E., F.R.San.I., president, was in the chair.

The adoption of the report for the year 1922 was proposed by Mr. F. Owen Moore, chairman of Council, and seconded by Mr. F. W. Haskard.

The year under review shows a gratifying continuance of the steady progress which the Institution has made since the termination of the great European war in 1918.

Fifty-five new members have been elected in the various grades of membership and twelve members have been lost to the Institution through seven deaths and five resignations, the membership totalling 698 at the end of the year 1922.

The Membership Committee, under the able chairmanship of Mr. A. J. Martin, have been very careful in scrutinising applications for membership in order to keep the status of the Institution at a high level.

The financial position of the Institution, which is of almost equal importance with that of membership, shows increasing stability.

The year opened with an address by the President, Mr. John H. Blizard, on the all-important subject of housing, the address being published in the JOURNAL for February.

Mr. Nandy Hoskins (Past President) presented the Institution with a handsome badge to be held by the President during his term of office and worn on official occasions.

Eight visits were made to places of interest to sanitary engineers.

The JOURNAL has been published regularly and contained subject matter of great interest to the members.

Examinations were held, three in London and one in Manchester, at which twenty-two candidates presented themselves, of whom eleven were passed. These examinations entail a considerable amount of work, especially to the chairman of the Board of Examiners (Mr. A. J. Martin, Past President), to whom the Council wish to record their high appreciation. The chairman visited Manchester to attend the examination held at that centre.

The opening sessional meeting was held at Caxton Hall on October 4, and was well attended. It was decided not to hold frequent sessional meetings, but ask members to contribute papers for publication in the JOURNAL and the Council consider that this policy has been fully justified.

The adoption of the Statement of Accounts and Balance Sheet for 1922 was proposed by Mr. W. Golding and seconded by Mr. H. R. Martin.

Mr. H. C. H. Shenton in presenting the bronze medal for the highest percentage of marks obtained in the Studentship Examination, said it had been won by Mr. S. Mahadeva, of the Public Works Department of Ceylon. Mr. Mahadeva was returning to Ceylon and expected to have charge of a great deal of sanitary work. The only town of Ceylon at present having a drainage scheme was Colombo. It was very important that the Institution should have representatives abroad, especially among Indian engineers, because they could help a great deal in furthering their interests. The Institution hoped to hold examinations abroad.

The bronze medal was then presented to Mr. S. Mahadeva.

Mr. Shenton, in the course of his presidential address, said there could be no better evidence of the progress and advancement of the Institution of Sanitary Engineers than the recognition it had received during the past few months from many quarters. Those in need of advice as to the appointment of engineers showed a growing tendency to consult the Institution. In dealing with such applications a very serious responsibility was accepted; and in order that the Institution might be able to fulfil the duties of their position fully, it was necessary that all sanitary engineers should become members, and that all those who become members should inform the Institution of their experience and attainments. It should be possible to put forward the right man to take up any particular kind of work, whether in the capacity of principal or an assistant; and for this reason it would probably be advantageous if each member were to be asked to indicate in which particular branch of work he specialises.

Membership had increased considerably, the number of members of all classes being well over 700. The examinations attracted a large number of candidates. The Institution was, moreover, in an excellent financial position; and the policy of not raising the annual subscription in consequence of the war, but of showing faith in the return of better times, meanwhile refraining from placing an extra burden on members, had been justified by results.

During the present session the meetings were well attended, so much so that in one case the seating accommodation was insufficient.

It was extremely gratifying to note that the State Sanitary Engineers of America, as represented by the Secretary of the Conference of State Sanitary Engineers, approached the Institution wishing to establish friendly relations. There is a special division of sanitary engineering in the American Society of Civil Engineers. The importance of co-operation between American and English engineers was very great, and we have a great deal to learn from America and they have a great deal to learn from us. Mr. George W. Fuller, the well-known American sanitary engineer, recently visited this country and inspected a large number of our sewage disposal works, and after conferring with various engineers and authorities, took the trouble to write a most interesting report which in many respects was flattering to our works and policy. American engineers are keenly interested in English works, and their own works are of extraordinary interest to us.

A great deal of very interesting work is now going forward in this country, among which may be mentioned the new works just started in working at East Ham, where one-sixth of the daily dry weather flow is treated on the bio-aeration principle by the Sheffield method. Recent experience seems to show that the Ministry of Health are disposed to consider the Activated Sludge Process for works of large or moderate size, but that they are not yet ready to approve schemes for villages or small communities where there would be a difficulty in keeping an experienced manager in constant attention upon the plant. Possibly experience may show them that such constant attention is not necessary for these small plants, any more than constant attention is necessary in a pumping scheme.

It was the desire of the Council that this Institution shall be of real value to the members, that it should not only provide them with a qualification, but that it should enable them to obtain knowledge and experience. It should also be of material assistance in enabling them to obtain work, and it should further provide the advantages which must always arise from friendly intercourse between men of the same and allied professions.

At the last meeting of the Sunderland Rural District Council, plans were lodged by the Sunderland Co-operative Society for 72 new houses at Fulwell. The society asks for the Government grant of £150 in respect of each house. The plans were referred to a committee to ascertain if they conformed to the requirements of the circular of the Ministry of Health.

A Builder's Claim in the High Court

Sitting in London, Sir Edward Pollock, Official Referee, delivered judgment last week in an action by Mr. C. D. Woodward, builder, of Biggleswade, against Mr. Percy Bygraves, market gardener, to recover the sum of £1,307, balance claimed to be due under a contract in respect of the erection of a house and store, etc., at Upper Caldecote.

Mr. Marriott was counsel for the plaintiff, while Mr. Eales was counsel for the defendant.

The Official Referee, in his judgment, said the question now had nothing to do with the amount of the claim. The question was as to the position of the parties under the contract, and the other question as to what was the result of it standing over, if necessary, for decision. The defence was that the money claimed was not due. According to the defence, the plaintiff agreed to erect the house for a sum not exceeding £1,000, and the store and other buildings at a cost of £250, and defendant had paid sufficient to satisfy plaintiff's claim in that respect. Defendant made a claim for certain sums which he said were paid on behalf of the plaintiff. Defendant's case originally was that the contract was to build a house for a sum not exceeding £1,000, but when the matter came for trial the defendant and his wife said most distinctly and positively that Mr. Woodward agreed to build the house for £950, and the buildings for £250. Upon that there was a conflict of testimony. It was very odd if that was the contract made that it did not appear until the defendant came into the witness-box. There was also a conflict of evidence between the parties as to whether there was a contract that plaintiff would build a house that would enable the defendant to take a subsidy. Upon that point the Referee accepted the evidence of Mr. Woodward in preference to that of Mr. Bygraves. One of the payments was made on February 1, 1921, and the Referee thought Mr. Bygraves swore—certainly Mrs. Bygraves swore positively—that that payment was made at their house at Caldecote. Mr. Bondfield, secretary of a building society, said that on February 1, 1921, Mr. Bygraves became a member of the building society, that upon that date defendant was at the Crown, Biggleswade, and paid his subscription, and he (Mr. Bondfield) distinctly remembered Mr. Bygraves making the payment to Mr. Woodward there. Mr. Woodward also swore that Mr. Bygraves was there upon that day, and wrote out the cheque in the Crown Hotel. Mr. Bygraves' evidence, upon which he was cross-examined, was :—" I have never been to a meeting of this building society. I don't belong to this society." Then next he said : " I was a member for three months in February, 1921. I don't think I was a member in December, 1921. I sold my shares. I had been a member for six or seven months. I was not in the Crown in Biggleswade on February 1, 1921." The Referee thought Mr. Bygraves' evidence on that matter was very unsatisfactory, and he absolutely believed the evidence of Mr. Bondfield and Mr. Woodward. That was a matter as to which there could be no making a mistake ; to the Referee's mind it was a deliberate falsehood. Then came another incident. There was a cheque for £100, dated March 7, 1921, and the account given by Mrs. Bygraves was that that cheque was given in respect of some work to be done to a ditch at the back of the premises, which they wanted filled up and pipes laid into it, and that Mr. Woodward agreed to do that, and that for the payment of the work this cheque was drawn. The Referee believed Mr. Woodward, and it was quite clear this £100 up to a certain time was considered by Mr. Bygraves as money paid on account of the house, because when he wrote a letter on June 24, 1921, he said :—" Enclosed are accounts which have nothing to do with me. Don't think you will frighten me. You agreed to build the house for £1,000, and the buildings for £250, and to settle the carting between us. My carting is £400, Fisher's bill is £120. You have overdrawn £100." That was the £100 paid by cheque dated March 7. There was another matter about carting in respect of which Mr. Bygraves now claimed £121. That amount was comparatively trifling, but it turned out the account was incorrect. The curious thing was that in an earlier letter of June 21, the Referee thought, the account was sent in as £200, and in the letter of June 24 it was put at £400. It looked as if Mr. Bygraves was rather trying to frighten Mr. Woodward. Mr. Woodward's statement was that he was not to pay for the carting, and that it was to be paid by Mr. Bygraves. With regard to that, the Referee found in favour of Mr. Woodward. Having regard to all these extraordinarily false statements made by Mr. and Mrs. Bygraves, he (the Referee) entirely disbelieved Mr. Bygraves' case, and entirely believed Mr. Woodward's case. There was one other little point which showed again the little reliance that was to be placed on Mr. Bygraves in reference to this question about the ditch on March 7. Mr. Bygraves swore that he and his wife were there looking at the ditch. The wife swore she was not there. The Referee had no doubt the wife was right. She was not there : she was indoors looking after the cheque, so that whenever it was possible to compare the two statements, Mr. Woodward's evidence was to be believed rather than Mr. Bygraves' evidence. Therefore, on the question as to what was the contract between the parties, the Referee found in favour of Mr. Woodward. The other question as to the amount would, he thought, have to stand over. The Referee had not prepared to go into that because, he thought, something was to be done by way of arriving at a sum, or, in the alternative, if necessary, for the matter to come before him.

Mr. Marriott said he communicated with Mr. Eales to see, in the event of the judgment being in favour of the plaintiff, if they could come to some arrangement as to the sum for which judgment should be given. But Mr. Eales informed him that he had no instructions from his clients about that.

Mr. Eales said it would be remembered that Mr. Stonebridge had prepared an alternative account, but the Referee did not go into the details of that account because it was thought more convenient to deal with the other matters first. Mr. Stonebridge had not given evidence, and he (counsel) did not think there was material upon which the Referee could decide the question of materials and value.

The Official Referee : There is material apart from that account.

Mr. Eales : It seems to me that unless some agreement can be come to between the parties, we shall have to go into the account in detail.

Mr. Marriott : I was under the impression the evidence was concluded.

The Official Referee : All I suggested was that instead of giving you the trouble of going through these matters you should see if you can make some agreement about it.

Mr. Marriott : I am quite willing to do that. I shall have no objection to referring to any items in the account, but I should object to Mr. Stonebridge being recalled to go item by item through the account.

Mr. Eales said he did not see any other way of dealing with it. Mr. Stonebridge had prepared an account from his examination of the work itself. He had measured the work, and there were little discrepancies with regard to nearly every item, as regarded quantity, quality or price, when compared with the bill of quantities from which plaintiff's surveyor prepared his account.

The Official Referee : I have got that in evidence. I have got item after item.

Mr. Eales said he should have to address the Referee on the accounts.

Mr. Marriott : Mr. Woodward has been kept out of this money for two years, and I should like to bring it to an end as soon as possible.

It was eventually agreed that the particular matter of the amount should be discussed at a date in the near future convenient to the Official Referee.

Forthcoming Events.

Friday, June 22.—Institution of Municipal and County Engineers. Combined Holborn and St. Pancras meeting of the Metropolitan District, at Connaught Rooms, Great Queen Street. 12.30 p.m.

Monday, June 25.—Royal Institute of British Architects. Presentation of Royal Gold Medal to Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D. 8.30.

Wednesday, June 27.—Institution of Municipal and County Engineers. Annual General Meeting at Leeds. (Four days.)

Saturday, June 30.—Architectural Association. Visit to Long Crendon Manor, Long Crendon, near Thame. Alterations and additions by Mr. Philip Tilden.

During the preservation work at the Parish Church of St. Hilda, Whitby, which dates from 1180, the pilasters of an original doorway were discovered, after having been blocked up over a century ago. They were in splendid preservation, and after other stones were removed the capitals and the arch of the beautiful Norman doorway were exposed. The church adjoins the abbey of Whitby, the original of which was founded in 680.

The annual general meeting of the Incorporation of Architects in Scotland was held in Edinburgh on Saturday, Mr. T. P. Marwick, F.R.I.B.A., Edinburgh, presiding. Messrs. J. Begg, F.R.I.B.A., Edinburgh ; J. A. Morris, F.R.I.B.A., Ayr ; and J. Salmon, F.R.I.B.A., Glasgow, were elected incorporation representatives to the Council for the ensuing year. Mr. Marwick was re-elected president. Mr. J. Lochhead, F.R.I.B.A., Hamilton, moved that the meeting next year be held in Glasgow, and in the discussion which followed it was suggested that some other town should be visited. Stirling and Helensburgh were mentioned as likely centres, and it was eventually agreed that the next meeting be held in the Glasgow chapter, with Stirling as the possible venue.

New Books.

"Practical Carpentry and Joinery." By R. Greenhalgh. London: Messrs. George Routledge & Sons, Ltd. Price 6s.

It is by no means too common an occurrence to be able to give wholehearted commendation to a work submitted for review. But the work now before us deserves such commendation beyond all doubt.

In a series of 21 chapters Mr. Greenhalgh ranges from the tools used in the trades concerned, proceeding by way of workshop appliances and practice, the consideration of various carpentry and joinery joints, fastenings and details, and with brief chapters on timber and mensuration. After that, the introduction of some examination papers makes a desirable addition.

The use of only line illustrations is quite a good feature in a work of this nature, but we notice that the text references to illustrations are not always perspicuous, though the diagrams themselves are very good.

It is, of course, a trifle, and yet it is an error to say that *vertical* strokes of lettering should *slope* (see page 87); vertical strokes cannot slope, any more than horizontal strokes; what the author should substitute is the word "oblique."

It is quite obvious that the proofs have been carefully inspected; but we would recommend that in a further edition the author should not refer to *dots* $\frac{1}{16}$ in. long (page 87); he must mean "dashes."

One or two other trifles we have noticed, but they *are* trifles, and the work is undoubtedly one to be recommended to students, both elementary and advanced.

"Architectural Building Construction." Vol. II. Part II. By Walter Jaggard and Francis E. Drury. Cambridge University Press. 18s. net.

This is the third volume of the series of which we have previously dealt with the two earlier parts. It covers the Carpentry of Floors and Roofs, Partitions, Temporary Carpentry, Roof Coverings, External and Internal Plumbers' Work, Drainage, Doors and other joinery, Plastering, Glazing and Painting, while the last chapter deals with materials. It is, like the preceding volumes, carefully and well compiled, but we do not care for the nature of the illustrations, and believe when a student has mastered the meanings of plan and elevation it is clearer and simpler to explain work by them than by the thin lined isometric diagnosis used.

"A First Course in Building Construction." By Brysson Cunningham, D.Sc., etc. London: University Tutorial Press, Ltd. 4s. 6d.

Hitherto this manual has been known under a slightly different title; for this, the third edition, the author has given the varied title as above. It is, in every sense, a book deserving of high praise, whether regarded from the view-point of arrangement, precision, accuracy, or of comprehensiveness—comprehensiveness, that is to say, within the limits which the author has set himself.

For it is, first and last, a student's book—a book for technical colleges and schools, and as such alone must it be regarded. It is, for instance, a distinctly school method of treatment to conclude each chapter with specimen calculations and sample examination questions and problems, based upon the information contained within such chapter.

We are not greatly concerned to draw attention to trifling errata discovered in the course of perusal; most of these will doubtless be noted when a new edition is in the press. We might, however, demur at a description of a joggle joint and a dowelled joint as being similarly constructed, and we might also criticise the somewhat curiously worded definition of raised panels. In Fig. 476 the description should read "Tapering gutter" not V-gutter. And one or two of the ironwork diagrams need revision. But these and a few other small details do not seriously detract, if at all, from the value of the book.

Trade Notes.

Messrs. Mann, Egerton & Co., Ltd., electrical engineers, of London, Norwich, Ipswich and Bury St. Edmunds, have recently received the following contracts for electric lighting, power, etc.:—Admiralty, Home Office, Treasury, Colonial Office, Scottish Office, Horse Guards, Postmaster-General's Office, Gwydyr House, Whitehall Gardens, and Customs Office. Amongst other large contracts are those for the Zoological Gardens, London; Lowestoft Hospital; Regent Theatre, Norwich; several large blocks of shops and offices in Regent Street and Haymarket, London; also a number of country house installations in various parts of England.

General.

The Glossop Dale Rural District Council are to consider a scheme drawn up by W. H. Radford & Son, of Nottingham, for the sewerage and sewage disposal of the parish of Charlesworth.

The Reading Town Council have accepted the tender of the Building and Publicity Works Construction Co., Ltd., of Swindon, amounting to £22,326, for the erection of 64 houses on the Shinfield Road site.

A commencement is to be made by the erection of 50 houses in connection with a new colliery about to be sunk at Carlton-in-Lindrick, near Worksop. It is understood that ultimately a thousand houses will be provided.

Messrs. Ellis & Sons, auctioneers, Manchester, have purchased an occupied site at the corner of Mosley Street and Charlotte Street, containing over 600 square yards of land. Their intention is to take down the present building and to erect in its place a ten-storey fire-resisting block of offices.

The trustees of the Wesley College Cambridge Foundation have accepted the tender (£22,788) of Messrs. Coulson & Sons, of Cambridge, and the erection of the hostel will at once be commenced on the site in Jesus Lane, purchased last year from Jesus College. Extras for drainage, heating, lighting, etc., will make a total of £26,693.

Capt. Anthony Arthur Poole, the winner of the Calcutta Sweepstake (£50,000), was connected with the building trade. For several years before the war he was in the employ of Messrs. Kerner-Greenwood and Co., Ltd., at King's Lynn. Capt. Poole's father is Major A. E. Poole, late 10th Hussars, and one of the Military Knights of Windsor.

It was stated at the last meeting of the Improvements Committee of the Manchester Corporation that there is a gradual increase in building. The Committee approved of 101 plans. Many of them were for stores and warehouses, but the most numerous of the groups was that for garages—namely, 26. There were 11 plans by private builders for dwelling houses.

Mr. William Harrington Scrymgour, A.R.I.B.A., of 113 Haverstock Hill, Hampstead, N.W., and 40 Chancery Lane, E.C., architect and surveyor, who died on April 2, left £144,778, of which £74,790 is net personalty. He left the property, being artisans' dwellings, known as The Bells, Drury Lane, to his clerk, Albert Edward Steel, he to execute a mortgage thereof for £1,500, repayable £71 13s. 5d. every half-year.

The governors of the Royal Albert Memorial, Exeter, have approved the Library Committee's special report recommending the erection of a library building costing £30,000 in Rougemont Grounds, sufficient to relieve the present congestion in Queen Street, thus securing a Carnegie grant of £19,000. The City Council are to be approached to contribute the balance, and accommodation will be provided for the city muniments.

The President of the Board of Trade has furnished a return showing the numbers engaged in the mining and quarrying of slate in the United Kingdom at the end of the years 1919, 1920, 1921, and 1922. The number of workpeople, including salaried employees, engaged in the industry were:—6,604 in 1919, 8,304 in 1920, 9,520 in 1921, and 9,523 in 1922. The figures for 1922 exclude Ireland, but the output of slate in that country is negligible.

The Carlisle City Council have decided to proceed with the erection of a new generating station, on land belonging to the Corporation, at Willow Holme. The estimated cost of the new works is £200,000, but of this sum £60,000 has already been spent on machinery installed at the existing works, which will be transferred to the new works. The Council also approved a scheme involving the erection of 200 additional houses on the Blackwell Road and Wigton Road estates.

At a meeting of the employees of the Vale of Neath Colliery Co., last week, the agent to the company announced that Sir D. R. Llewellyn had authorised him to say that he was prepared to give £5,000 to encourage the building of houses at Glynneath by the workmen of the company. The intention was to give a free gift of £50 to every man who built a house. It was unanimously resolved to accept the generous offer, and a committee was selected to formulate a building scheme.

The Commercial Secretary to H.M. Legation at Christiania states that the production of cement in 1922 is estimated at about 1,500,000 barrels, as compared with a total capacity of about 2,300,000 barrels. Owing to slackness of demand in Norway, the greater part of this quantity was destined for export. Exports of cement amounted to 88,714,934 kilogs., as compared with 47,961,910 kilogs. in 1921. The prices obtained, however, were poor, and many companies established during the war have been compelled to write down the value of their plant very heavily.

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An Old Problem.

It is rumoured that difficulties have arisen in connection with the proposed competition for central headquarters for the Freemasons, the trouble being that while that body are willing to employ an assessor, they are not inclined to allow his decision to be final and binding without appeal.

This difficulty has frequently occurred in the past, and is one which could be eliminated, in our view, without injustice to architects, most of whom would, we believe, welcome the revised conditions, the adoption of which we have always advocated. If the objection to accepting an assessor's award as final means that laymen merely want to have an assessor's opinion and then judge anew for themselves, it is an objection with which we feel no sympathy, for it is based on an indifference to trained and competent opinion. But if, on the other hand, the difficulty arises because the public has a suspicion that an assessor like other mortals sometimes makes mistakes, and they do not want to be irrevocably bound to the result of such mistakes, we have every sympathy with the attitude, and the changes of procedure required would be welcomed by most architects who compete, and would enhance rather than detract from the standing and reputation of the profession.

There is no higher cause in the world than that of Justice, for justice alone can and should, as far as is humanly possible, be accorded to all men, and anything unjust is automatically condemned.

The remedy is a simple one—the institution of a Court of Appeal at the Institute, which should examine any cases of alleged injustice and breach of conditions. If it were decided that such a case had occurred, the assessor's award should be quashed and the competition re-assessed by another assessor, to whom the fees of the first assessor should be paid. If this were done the public body in question would not be called on to pay additional fees, while it is obvious that an assessor is paid for the exercise of judgment, and if he shows incapacity in this respect he has rendered no services. Doubtless there would from time to time be frivolous and unjustified appeals, but if a competitor had to pay a substantial sum into Court when making his appeal which became forfeited if the appeal were dismissed, men would be careful before they challenged an inquiry.

The decisions which were not appealed against would carry with them additional *kudos* because it would stand to reason they were considered to be sound and well merited.

We may be told that many architects would prove unwilling to act as assessors if they were uncertain that their decision would be accepted, but we should say they would be found to be either men of exceptionally autocratic temperaments or men of uncertain competency, and in either of those cases the profession would be better without their services. The really competent and judicially minded man would be willing to stand or fall by the result of his judgment. More than this, he might feel better pleased if he knew that the competitors, who after all are his professional colleagues, could find nothing to object to in the work he did for them and for the body by whom he was commissioned to act.

Our judicial system gains and does not lose because of the existence of the right of appeal. English justice is founded on this right.

We believe that the amount of work for which competitions are held would be increased by the change, that the best architects would be more willing to enter the competitive arena, and that with the elimination of friction caused by incompetence and injustice the friendly relations of architects with their colleagues would be more firmly established. We believe, too, that the public are more and more willing to value the importance of professional work, but that the obvious pitfalls of the present conditions of competition are very apparent to them. The constitution of the Court of Appeal would offer few difficulties, for there are in the ranks of the profession a large proportion of men who are conversant with competition practice, and the composition of the Court would be no more difficult than that of any of the other committees of the R.I.B.A., nor would its functions be more onerous or difficult.

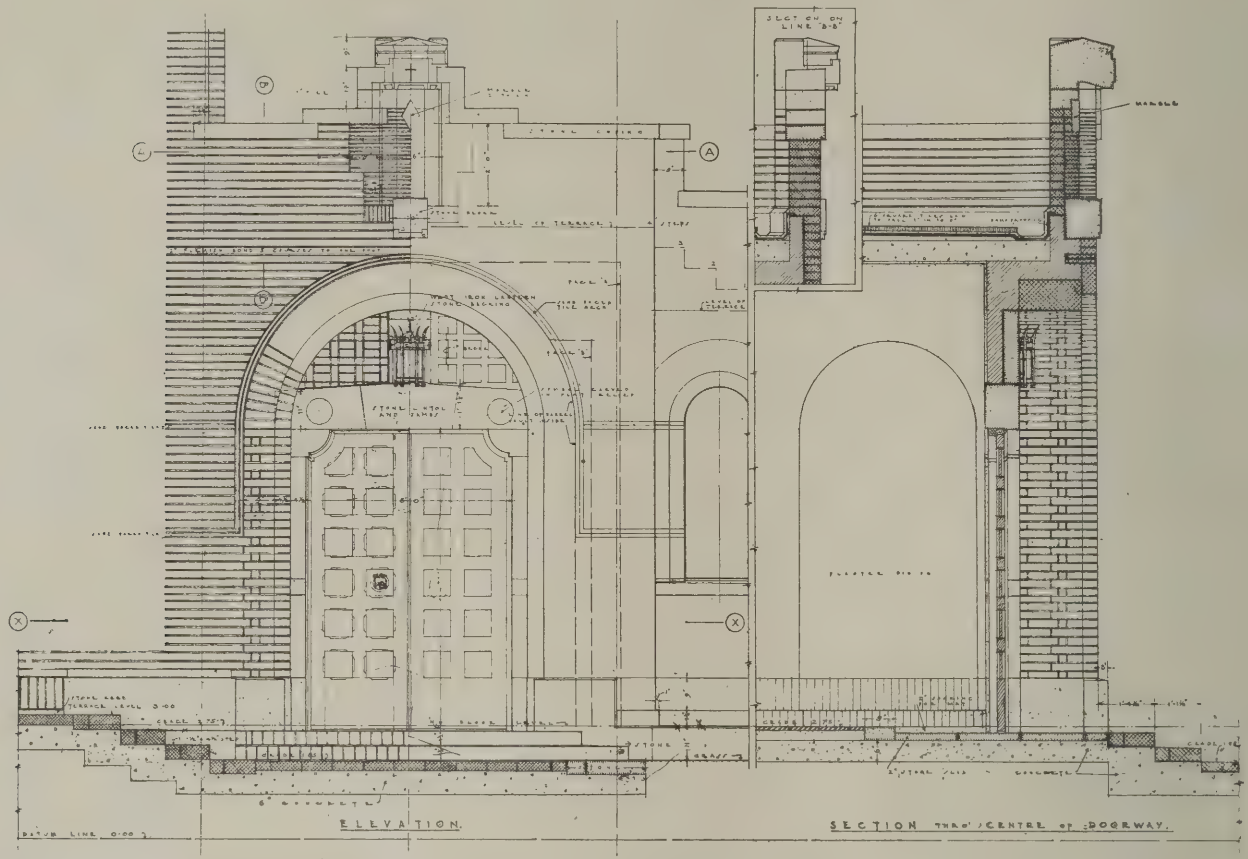
It is unfortunate when great and important bodies like the Freemasons fail to agree with us, but we think that such a change as we have outlined would do away with the doubts they feel, doubts which unfortunately have from time to time justification as we all of us know.

We need not be surprised if the good designer frequently makes a bad assessor, for the functions he has to perform are utterly different. The designer, to do his best, must become not only absorbed in the problem he has to solve, but must after consideration convince himself that his method of solving it is the best ; while the assessor should have no preconceived ideas or prejudices, but should examine everything he has before him without prejudice, never forgetting the limitations which are usually imposed in conditions. He is primarily a judge, and only secondly an architect, because to decide technical points he must be an architect. He must not imagine more than he can see, and his conclusions should be so well founded on fact as to be readily explained to a committee, whereas sometimes his frame of mind is that of the man who did not like Dr. Fell.

Our Illustrations.

SECOND CHURCH OF CHRIST SCIENTIST, PALACE GARDENS TERRACE, LONDON, W.
Sir J. J. Burnet, A.R.A., and Partners, Architects.

THE FIRST CHURCH OF CHRIST SCIENTIST, BELFAST. C. Williams Ellis, Architect. Drawing by P. Hepworth.



SECOND CHURCH OF CHRIST SCIENTIST, PALACE GARDENS TERRACE, LONDON. Sir J. J. Burnet and Partners, Architects.

Notes and Comments.

An Infected House.

Mr. Justice McCardie delivered his considered judgment in this case, in which the plaintiff, Mr. B. M. Collins, sued the defendant, Mrs. E. Hopkins, for damages for breach of an implied warranty on the letting of a furnished house, The Poplars, at St. Albans, that it should be reasonably fit for habitation. The plaintiff's case was that there had been a breach of warranty, as the defendant's husband, who was suffering from pulmonary tuberculosis, had been living in the house until a short time before the plaintiff and his family went into occupation.

The Judge stated his conclusions in the following order: He was not satisfied that the house and its contents were free from tubercle bacilli on October 26, 1922; and was satisfied that there was a substantial risk that the house and its contents were so infected with tubercle bacilli on October 26, 1922, as to constitute an actual danger to the plaintiff and his household; while recognising the difficulties of inference on the point, he held (if necessary) that in fact the house and its contents were so infected with tubercle bacilli on October 26, 1922, as to render it unsafe for occupation. He therefore ruled that the house was not reasonably fit for habitation and it followed that the plaintiff was entitled to renounce the tenancy and to quit the house. It also followed that he was entitled to damages; these Mr. Justice McCardie assessed at £130, and gave judgment for the plaintiff for £130, with costs.

The judgment seems to be indisputably sound, being founded as far as possible on facts, or what are presumably and probably facts. In this and many other cases law is only the embodiment of what we may describe as being simply commonsense.

"Harlequinade."

At last we know fear. We have survived with fortitude the production of "Architecture" by the Society of Architects, we struggle along in spite of "Homes and Gardens," and the delightful pictures contained in it, but the production of "Harlequinade" is a mortal blow, and finds us down and out. For "Harlequinade" is good from cover to cover, and reveals the inner soul of the A.A. And what a soul it is! Its very advertisements are made at the A.A., for the one and only Ching, the inimitable and irreplaceable house master, has become a partner in a firm of heating engineers—Craig and Ching—and their blood-red radiator with a black cat standing in front of it forms the frontispiece of the new publication. Mr. Howard Robertson's appreciation under the heading "Uncomyn Ching" is very amusing and well put. "Peeps at an A.A. Diary" show that Samuel no longer stands alone, but the best thing in a great number is "What is wrong with Architects?" by "Felix." We should like to meet and know "Felix," who should be in the architectural secret service or President of the Institute. He writes: "First of all, let me warn you not to take these vague nothings seriously. If I hear that any wretch has made away with himself after reading this I shall merely laugh, for it will prove my contention, viz.: That an Intolerable Seriousness is the Besetting Sin of the Architectural Profession.

"You are dominated by a vast, vague monster of your own creation, and its name is Architecture. This shadowy thing, this Architecture, catches you before you are old enough to realise the deadly fascination that it exerts on its victims. I have seen mere boys wasting their unforgettable youth 'tracing the Development of the English Parish

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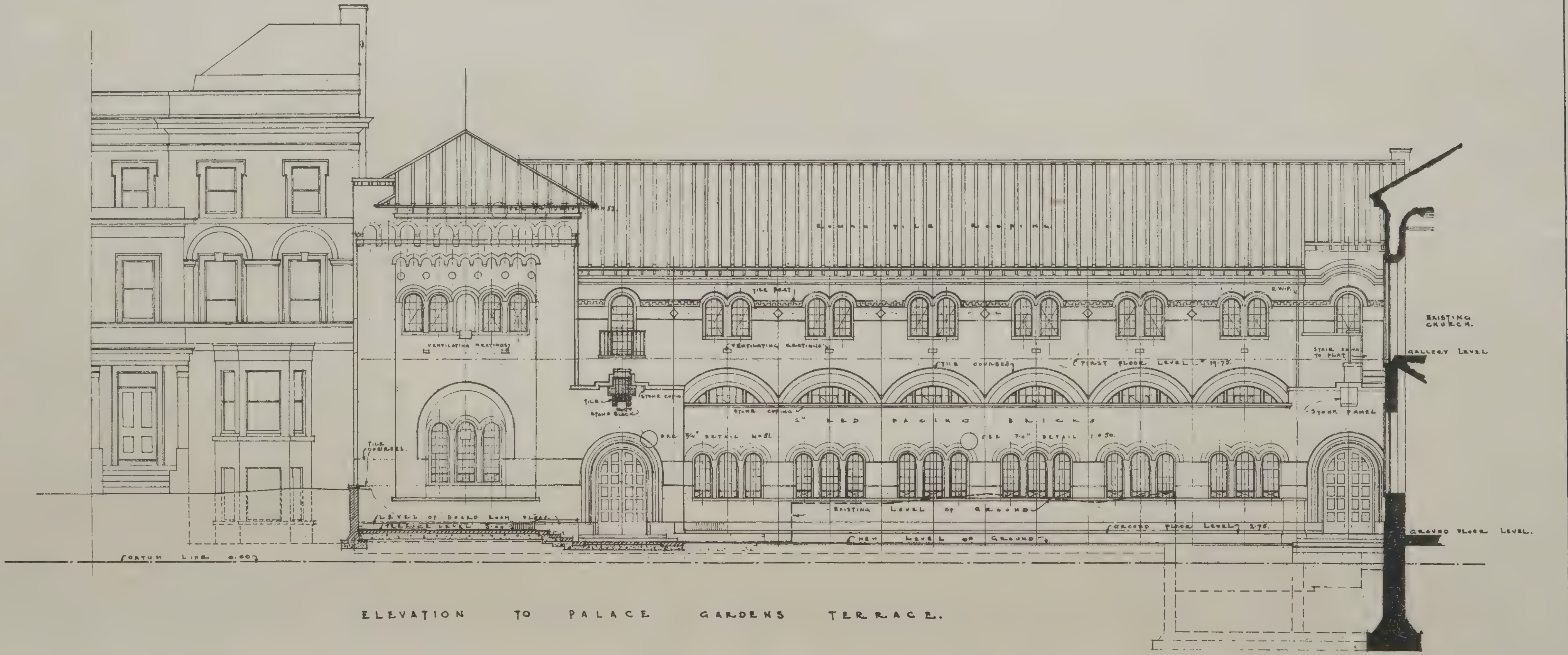
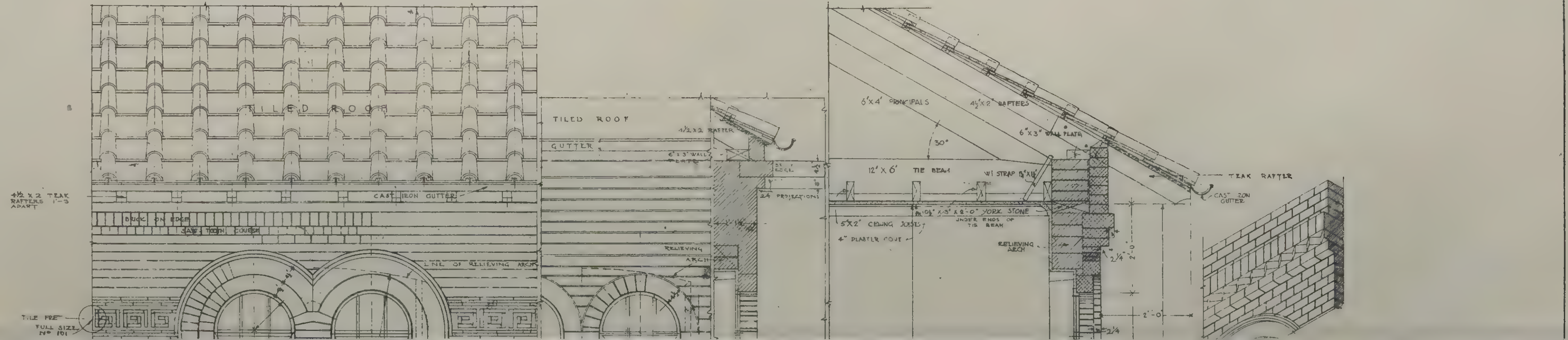
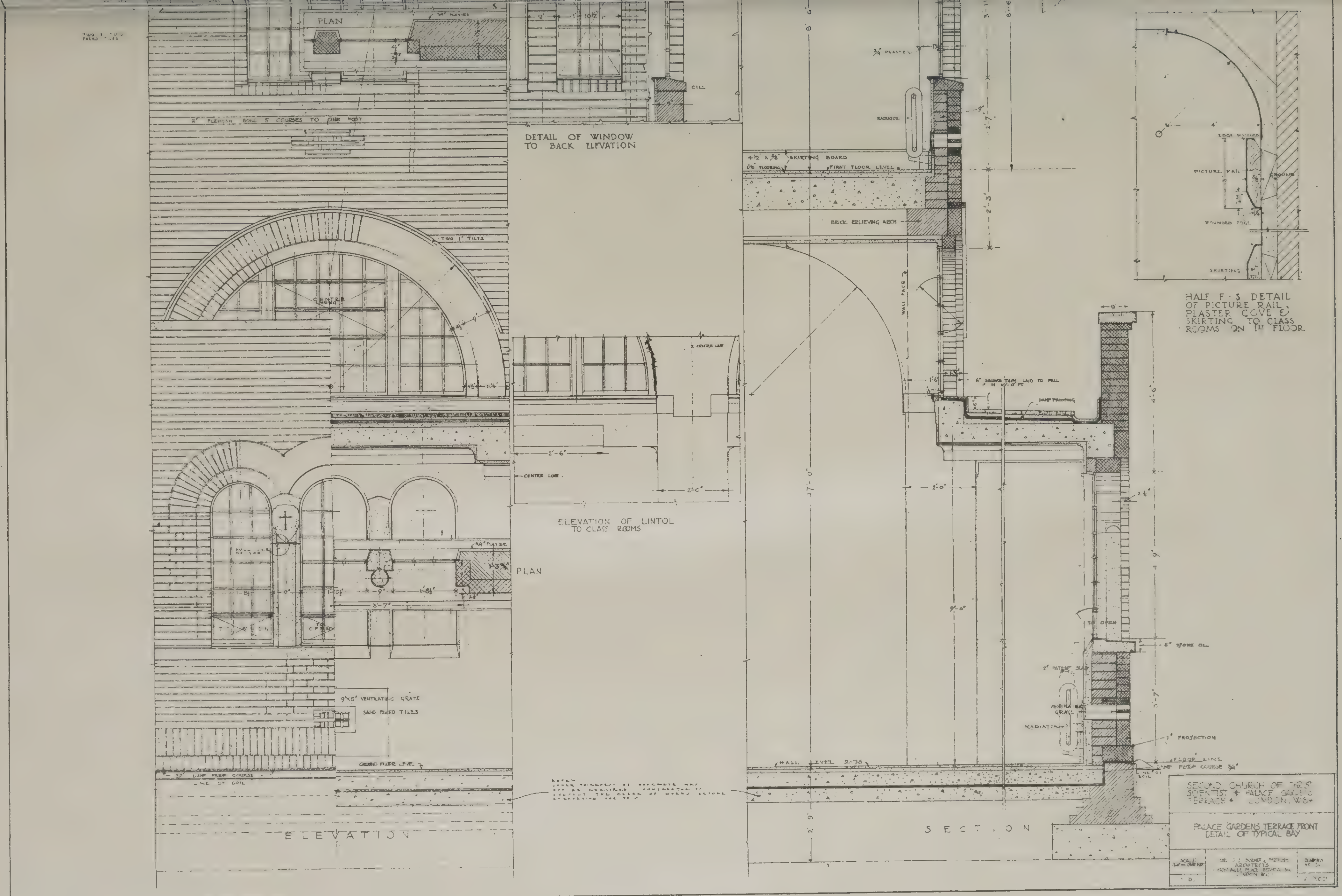


ELEVATION TO PALACE GARDENS TERRACE.





"INK-PHOTO" Wm BROWN & CO. LTD. SUCCrs TO SPRAGUE-HAYCOCK (PRINTERS) LTD. 68 & 70, DEAN STREET, LONDON, W.1.

DETAIL OF TYPICAL BAY. SECOND CHURCH OF CHRIST SCIENTIST, PALACE GARDENS TERRACE, LONDON.

SIR J. J. BURNET, A.R.A. & PARTNERS, Architects.

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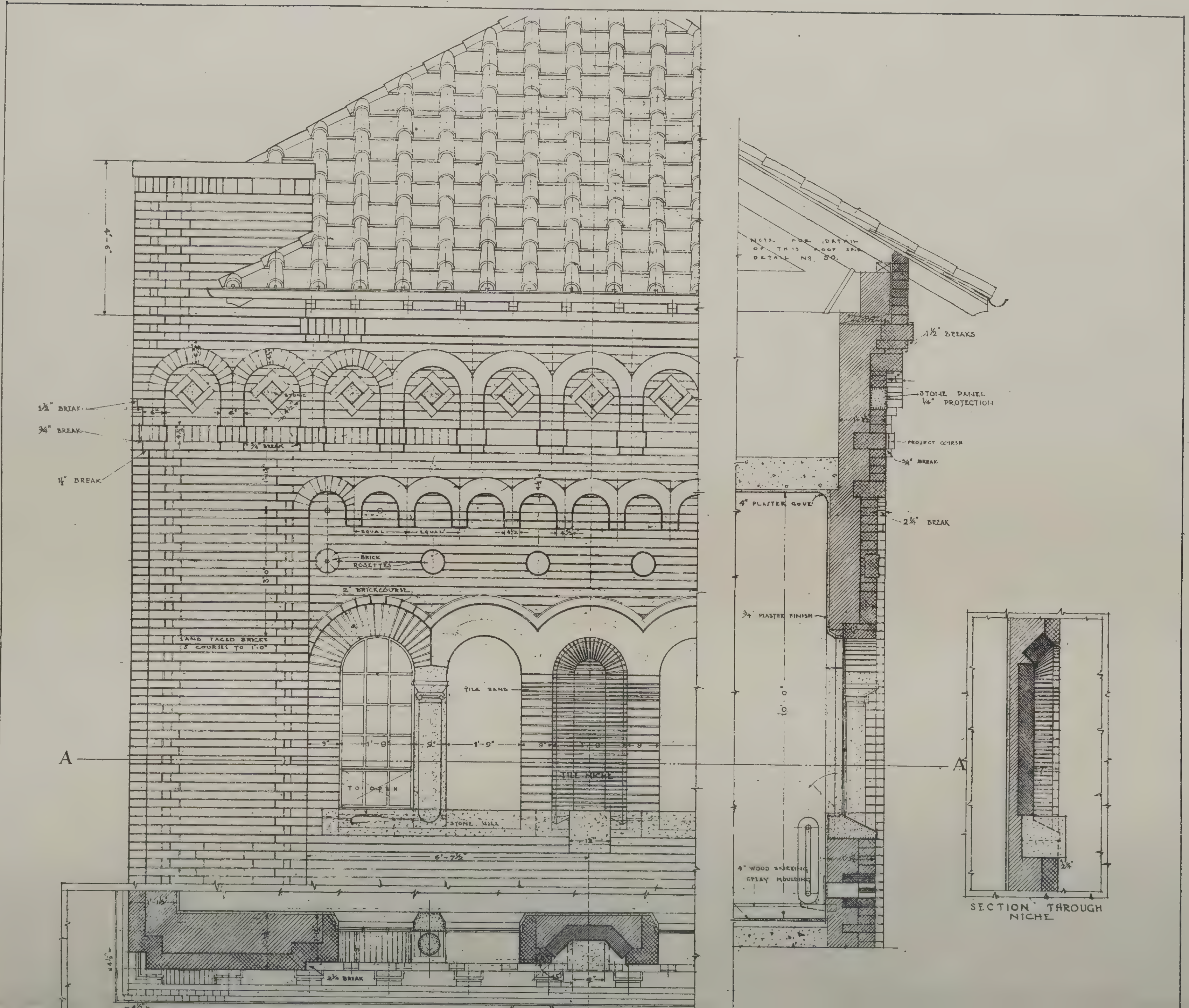
NOTE FOR DETAIL OF THIS ROOF SEE DETAIL No. 50.
1½" BREAKS
STONE PANEL ¼" PROJECTION
PROJECT COURSE
¾" BREAK
2¼" BREAK
4" PLASTER COVE
¾" PLASTER FINISH
10'-0"
4" WOOD SKIRTING SPLAY MOULDING
SECTION THROUGH NICHE
2¼"
4'-6"
1½" BREAK
¾" BREAK
1¼" BREAK
STONE
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EQUAL
EQUAL
4½"
BRICK ROSETTES
2" BRICKCOURSE
3'-0"
SAND FACED BRICKS 5 COURSES TO 1'-0"
TILE BAND
TILE NICHE
1'-9"
9"
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TO OPEN
STONE SILL
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6'-7½"
2½ BREAK
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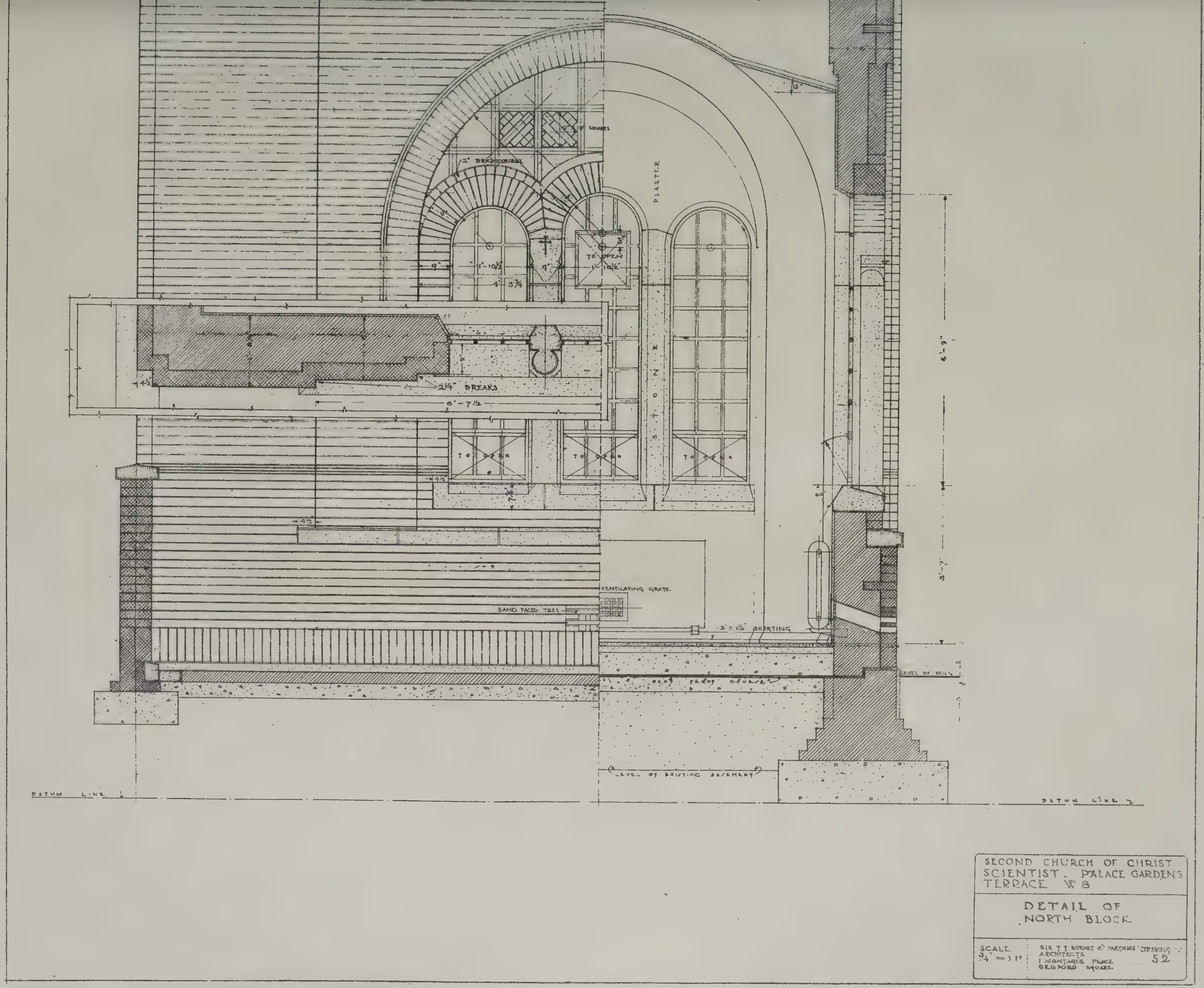

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DETAIL OF NORTH BLOCK. SECOND CHURCH OF CHRIST SCIENTIST, PALACE GARDENS TERRACE, LONDON.

SIR J. J. BURNET, A.R.A. & PARTNERS, Architects.

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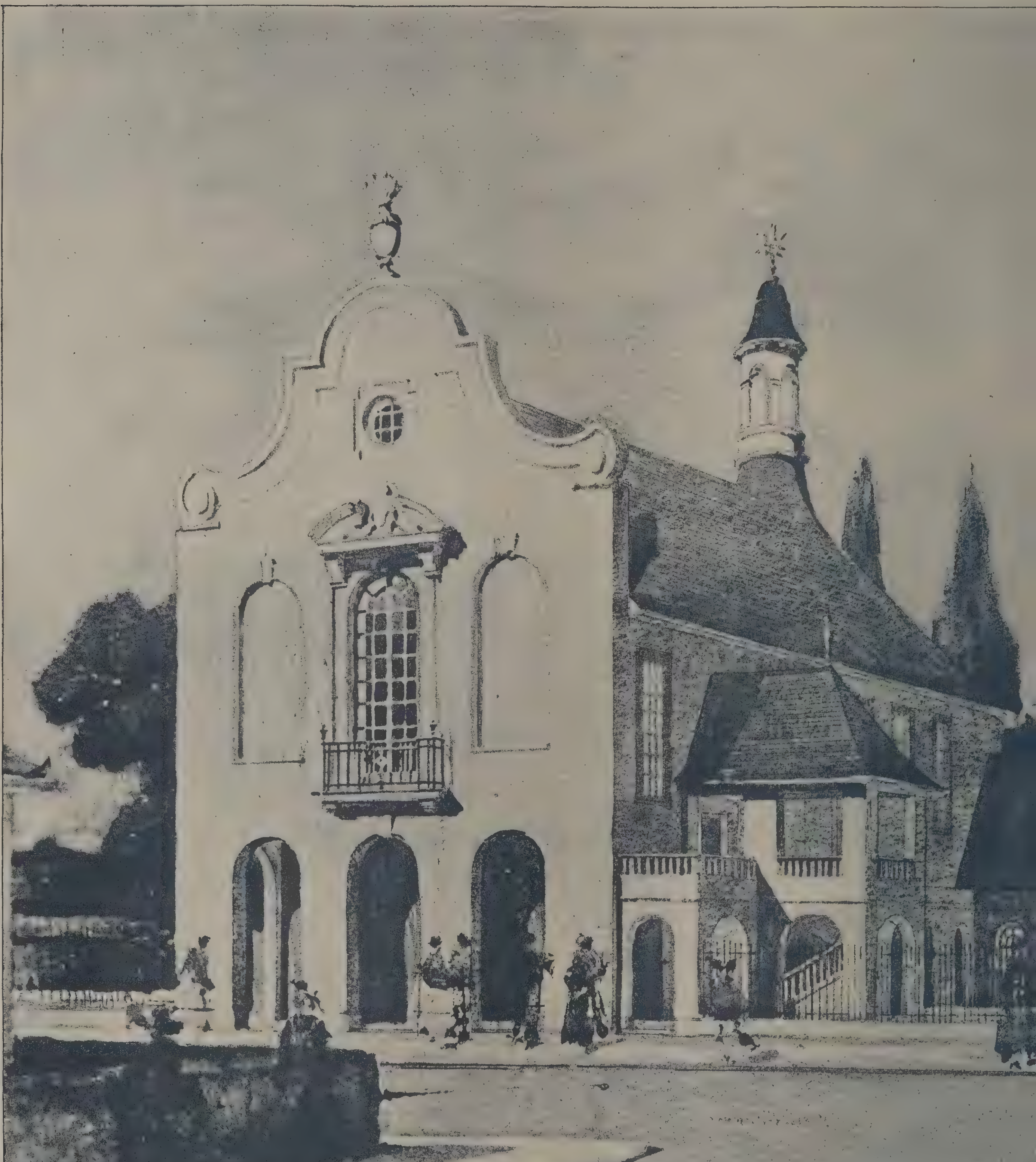
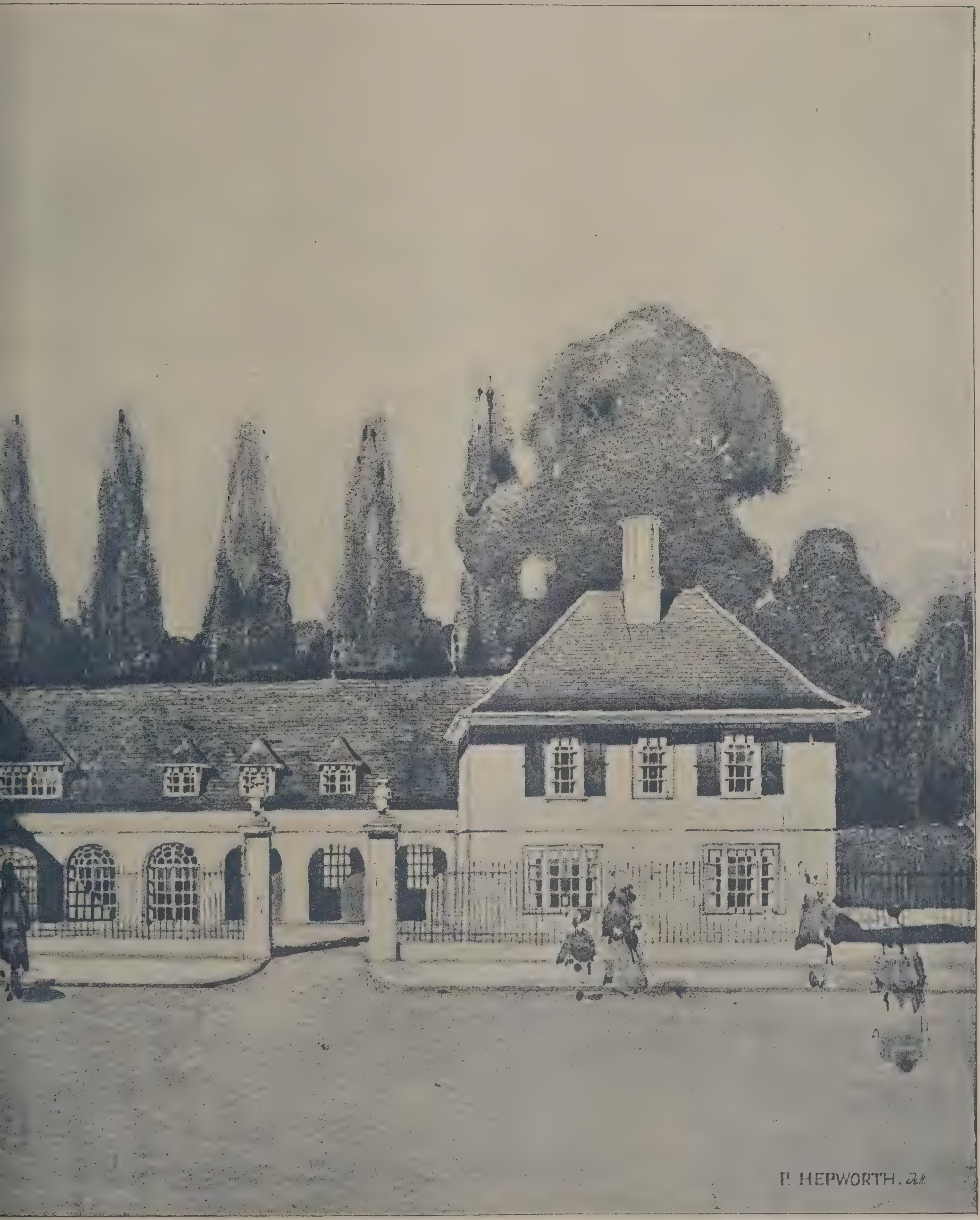


THE FIRST CHURCH

C. WILLIAMS ELLI


P. HEPWORTH. del.

"INK-PHOTO" WM BROWN & CO. LTD. SUCCS TO SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

CHRIST SCIENTIST, BELFAST.

HITECT. Drawing by P. HEPWORTH.

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Church' with all the rabid zeal of the true archæologist in order that they may reach the climax of the vast and unwieldy plan of Architectural Education—which climax might very properly be called 'the Condemned Hold at Conduit Street.'

"It is from the tumbril on the way to Conduit Street that you take your last look at ordinary men—after you have been enrolled for 'transportation' you are become Architects—and you have only to attend meetings of the various societies to find out the enormous responsibilities with which you are saddled.

"When first you commence architect, you undergo your early struggles—which I shall not attempt to describe—and the harder you work the further into the slough you go. At last you 'arrive' and you are—a flute player at the gross banquet of capital. By this time you are beyond hope—you live Architecture! Your breakfast sausage is, to you, a fluteless column, your poached egg a gilded saucer dome in bird's-eye perspective."

Has not Felix some contribution for our columns? We like the second premiated design for R.I.B.A. Academic Dress far better than the winning scheme.

A Property Score Card.

Dr. William Paul Gerhart, C.E., of New York, has made out a score card divided into fifteen sections, which include Location, Physical Conditions and Climate, Educational, Religious and Social Opportunities, Milk Supply, Taxes, etc., etc., to all of which certain marks, the sum of which amounts to 100, are allotted, while a blank space at side is left for the actual marks allotted. In the explanatory pamphlet something like 15 questions are put under each head—that is to say, those who are considering purchasing a house would have to go into something like 200 questions before marking up their card. Considering the fact that many of these questions could not be answered definitely, the whole complicated system seems to us to be useless. A man's judgment is probably sounder if he does not concern himself with a number of small points, but is guided by the impressions left after a careful general consideration. After all, we cannot divide a man's judgment into a series of pigeonholes, and we do not expect that many will avail themselves of this complicated system of arriving at a mathematical solution which is not applicable to such a matter.

A Catalogue of English Woodwork.

The Directors of the Victoria and Albert Museum have issued a first volume of their catalogue of English Furniture and Woodwork, covering the Gothic and Early Tudor Periods, and published at 2s. 6d., or 2s. 10½d. posted. The 56 pages of plates are well chosen and produced, and give a very good idea of the richness of the Middle Ages in woodwork and the designs based on its use. It sometimes seems unfortunate that such work as is here shown should be seen in the halls of a modern museum, which seems incongruous for such purposes. If there is a type of building in which period design might be in place it is a museum, and the work here illustrated would be seen to better advantage were it housed in such a building as Staple or Clifford's Inn.

The Society of Arts.

We hope the Society of Arts enterprise in giving prizes in connection with competitions in the Industrial Arts will meet with the success it deserves and will be supported by our leading manufacturers. If men feel they are not only competing for a prize but are being given an opportunity to make their skill known to those who are able to give them employment, the movement should meet with success, while the influence of the manufacturer will be exerted to keep students in touch with the practical requirements which should largely shape and determine the direction of their efforts.

Rome Scholarship in Architecture, 1923.

On the recommendation of the Faculty of Architecture of the British School at Rome the Commissioners of 1851 have awarded the Rome Scholarship in Architecture for 1923 to Mr. R. A. Cordingley, A.R.I.B.A., of the University of Manchester; and on the recommendation of the same body the Henry Jarvis Studentship, offered by the Royal Institute of British Architects, has been awarded to Mr. Edwin Williams, A.R.I.B.A., of the University of Liverpool.

Mr. R. A. Cordingley is 27 years of age, and was born at Sale, Cheshire. From 1911 to 1914 he was architectural pupil with Mr. Robert J. McBeath, of Sale, and attended the evening course at the Manchester Technical College. He served for four years during the war in the Royal Engineers and Air Force, and in 1919 entered the School of Architecture of Manchester University, winning the Henry Jarvis Travelling Studentship of the R.I.B.A. in 1920 and 1921, and the Manchester Institute of Builders' Travelling Scholarship in 1922, when he was also elected an Associate of the Royal Institute of British Architects.

Mr. Edwin Williams, who is awarded the Henry Jarvis Studentship, is 26 years of age, and is a fifth-year student of the School of Architecture of Liverpool University. He has held the Henry Jarvis Travelling Studentship of the R.I.B.A. and the Lever Prizes in Architecture and Civic Design. Mr. Williams served for four years during the war in the 55th West Lancs. Division. He was elected an Associate of the R.I.B.A. in 1921. It is interesting to see that the North of England still maintains its position with respect to these important prizes.

The Cork City Hall Competition.

The award of the Assessor (Mr. L. O'Callaghan, F.R.I.A.I.) was made public on Saturday last as follows:—

1st.—Messrs. A. E. Jones & S. Kelly, Dublin.
2nd.—MacDonnell & Dixon, Dublin.
3rd.—W. H. Byrne & Son, Dublin.
Commended.—Mr. Vincent Kelly, Dublin.

Thirteen designs were submitted in the competition, which was restricted to architects practising in Ireland. The general standard of draughtsmanship was very good, but the planning and design somewhat disappointing in the majority of the schemes.

The building is intended to replace the old City Hall, a simple but effective limestone building on the quays adjoining the Cork & Bandon Railway Terminus. It was, with the adjoining Carnegie Library, burnt down during the troubles about two years ago in Cork. The new building will be on the same site, enlarged by adding in the site of the Library. This made a somewhat awkward L shape, difficult to fill in symmetrically, but the successful competitors have managed this, on the whole, pretty successfully. They make use of one portion of the site by providing a Mansion House, as an official residence for the Lord Mayor.

Messrs. Jones & Kelly's plan is compact and symmetric, with the City assembly hall in the centre. The back of the hall is made use of for the strong rooms.

The site, as stated, faces the river Lee, and has as well frontages on two side streets, one of some importance. Some of the competitors made the mistake of making their main front towards the side street, but Messrs. Jones & Kelly adopted the obviously correct solution—that of making the river façade the main front: anything else seems unthinkable.

The design is a simple and dignified one; the general treatment is after the Greco-Roman phase of the late eighteenth and early nineteenth centuries that prevailed in the public buildings of Dublin and Cork at that period and which owed its development to the work of Gandon, Cooley, Johnston, and others in Dublin, and later the Brothers Paine in Cork. The design is in harmony with the architectural traditions of the city, and will be a worthy object and the detail simple and refined.

The main façade consists of a centre of the Doric order, with wings and recessed ends, which it would be a decided improvement to convert into projecting pavilions.

The limitations of cost plainly dictated a certain severity of treatment, which is all to the good after the surfeit of garish and ill-applied ornament so almost invariable in Ireland. It was a condition that the cost of the building should not exceed £120,000. It is to be hoped that the whole of the frontages will be carried out in the fine whity-blue local limestone in which all the older public buildings are done.

The successful competitors are both quite young men, not long in practice and are to be warmly congratulated. They were assistant and pupil in the office of Mr. R. M. Butler, of Dublin, until commencing practice. It is, however, not their first success, as a couple of years ago they won the competition for the Ballymena Town Hall. They thus win their first two competitions. It is rather remarkable that none of the Cork competitors were placed.

Royal Institute of British Architects.

The sixteenth general meeting of the Session was held on Monday last at 9 Conduit Street, W. Mr. Paul Waterhouse, M.A., F.S.A., president, in the chair.

At the preliminary Council Dinner the following were among the guests: Sir John J. Burnet, A.R.A., R.S.A., Hon. LL.D., (Royal Gold Medallist); Sir Aston Webb, K.C.V.O., C.B. (President, The Royal Academy); Sir Frederic Kenyon, K.C.B., T.D. (Director, the British Museum); the Rev. E. C. Pearce, D.D. (Vice-Chancellor, University of Cambridge); Sir William Orpen, K.B.E., R.A.; Sir Robert Lorimer, A.R.A., R.S.A.; Sir Henry Newbolt, C.H.; Mr. J. C. Squire, Mr. Gordon Selfridge; Lieut.-Col. H. P. Cart de Lafontaine, O.B.E., T.D.; Mr. Arthur J. Davis; Mr. Norman A. Dick; Monsieur Paul Léon (Directeur des Beaux Arts); Monsieur G. Legros (President, S.A.D.G.); Monsieur Chretien Lalanne (representing the Société Centrale), and five members of the Société des Architectes Diplomés par le Gouvernement.

PRESENTATION OF ROYAL GOLD MEDAL.

Mr. Paul Waterhouse delivered the following address:—

"Our Gold Medal night is for three reasons the best night of our year.

"I put first among these reasons the fact that on this occasion as often as it recurs we recognise the substantial reality of the royal protection under which we live. I do not merely mean that a tangible, ponderable piece of gold passes literally from Buckingham Palace to Conduit Street, though that in itself would be an act of kingly favour which we should all appreciate; but that by a deed of gracious symbolism the grace of which is by no means either empty or formal our Monarch does actually submit us to the duty of making a choice on his behalf, does actually, according to his Royal pleasure, confirm our choice, and, further, does great honour to the president of the moment by allowing him to administer the Royal gift.

"The second reason is that in this annual festival we bring to fulfilment the annual exercise of what may be called our critical generosity. Architects, though no outsider would guess it, are not always free from the chagrin of rivalry. I would not breathe the word jealousy, even if I were to whisper the word envy. But I have known circles in which the discussion of contemporary architecture was more tempered with justice than mercy, and a justice at that in which reproof was more conspicuous than applause.

"But when the Gold Medallist is being sought for these feelings are absent. I have been in my time on many a Gold Medal Committee. I am unwilling to say that those committees have never made mistakes, but I can say that I have never known judgment marred by misguided partiality, malice or bias. The contest has often been keen—as indeed it should be—for the prize is great and the competitors good and many, so that those on whom falls (with the Council) the task of selection have often an embarrassing discrimination to effect. But the embarassment I can truly say is never tinged with any spirit but that of the apparent equalities of claimants. Claimants I say, but the word is disastrous, for it can rarely if ever have happened that the medal has gone to one whose own voice has been raised in his favour. No, gentlemen, it is with ungrudging appreciation on the part of the selectors, and with unassuming modesty on the part of the recipient, that this world-honoured gift from the throne of Old England finds its way from the Giver to the Receiver.

"And the third reason of this evening's outstanding pleasure is the climax of the event itself. That an architect or an advancer of architecture should stand forth in an assembly of representative architects of this country as the one man, British or Foreign, chosen as the worthiest to receive their passing plaudits and their more permanent homage is an event and a spectacle something to move the heart, something to stimulate the young, something to vitalise in the minds of all the keenest sense of the nicety and brotherhood of art.

"It is known to you all—for the Institute has spoken it, and his Majesty has graciously confirmed the word spoken—that the man on whom our purpose has been unanimously bent in this year's decision is

SIR JOHN JAMES BURNET,

an Associate of the Royal Academy of Arts and an Academician of the Royal Scottish Academy. His honours are already many. He holds the Doctorate of the University of his native Glasgow. Paris has given him that coveted distinction—honorary corresponding membership of the Institut de France, and twice he has won (in bronze and in gold) the medal of the Salon.

"Of his executed works we all have knowledge, and among most Londoners that knowledge will relate chiefly to those works of his that are well-known landmarks in our own town.

"There is no injustice in this, for our London examples are very interestingly typical of certain differences of method in Sir John's art.

"The North Front of the British Museum will, I expect, long remain a criterion of his genius, and it is a test of which its designer may well be proud. I have many a time preached a small sermon upon it, pointing out to young architects that only a man of the first rank would have had the continence and modesty to refrain from breaking the cool rhythm of that colonnade by an assertive central feature.

"There is consummate art in the skill with which the central doorway receives just sufficient emphasis and no more. Centrality is here rather respected than encouraged or acclaimed. The very lions, a lovable pair, perform their duty with self-suppression, and not with emphasis.

"In fact so triumphant is the riot of reserve that I could grudge that little bit of froth which on the metal work on the cornice whispers, 'here is the middle.'

"I have no idea where Sir John would place 'General Buildings' in his own scale of comparative excellence; but I confess that to me it comes high. Its situation is happy on a convex frontage playing a movement of contrary flexure with the normal concavity of the Aldwych sweep. Sir John handles his theme with a boldness worthy of the site and its size. He takes as his ground-floor theme the motive which we may, I believe, respectfully call the Burnet architrave—a great granite ribbon a yard wide which rushes up the sides and, duly mitred, flings itself across the top, graceful with the general curve of the frontage and grateful, as any curved lintel would be, for the support of the two massive columns which are the monarchs of the lower design. Behind the three-bay design thus formed on a segmental plan stands in a straight line and in delicate counter rhythm the five-bay composition of the actual window plane.

"In totally different methods, different from this and from one another, are the Institute of Chemistry in Russell Square and the Kodak Building in Kingsway. Both are evidences of the wish of the designer for fitness and directness, both a protest against that inflexibility of architectural invention which would make a man stamp with one family countenance buildings that bear no relationship to one another.

"The Kodak Building, standing as it does in a street of structures which, if not pharisaic in propriety, are at least fairly normal in their adherence to an accepted level of architectural dressiness, is Sir John's great protest—as such it is admirable. The measure of the value of all protestantism varies immensely with the value of the thing protested against. A protest takes its own risks. It may not be the protester's fault if it outlives its purpose. Sir John himself will have wondered whether it wisely chose its place.

"In Adelaide House, known at present by drawings only, we are happy to feel that Sir John is in control. Given the necessity for anything so vast, it is important that it should be handled by a giant. No architect could be trusted with it save a man with a great sense of mass and scale. In scale, in mass our Gold Medallist is an expert, and we are happy, Sir John, to think that so great a responsibility is in the hands of one whose thought and execution are large.

"Oxford Street again has its giant, and you are again the—I must not say the giant-killer. Shall I say the giant's nurse, adding the conviction that you will not only nourish it into comely manhood but render it harmless to its smaller neighbours. I, for one, am happy in the certainty.

"I am glad to be one of those to whom your works outside London are not unknown. I have prowled round and into the great Bathhouses at Alloa. I have more than once turned back in Princes Street to have another look at the ingenuity of Forsyths' shop; I have admired the subtle change of character between it and the Stores in George Street, which typifies, I think, the different character of the two businesses. I have lingered outside the Glasgow Athenæum, and have considered with a respectful smile the adroitly grave frivolity of the Alhambra in the same city.

"Sir John will have pardoned me for having looked at his work in the light in which I think he has designed it. It is not work which a man or woman with any sort of brain can pass with a mere 'good' or 'bad'; still less with indifference.

"Indeed, so often have I studied it, always with some stirring of my own thought, and so often will most of you have studied it also, that it would have been an insult to Sir John and a great deprivation to ourselves if silence had been kept over those qualities which so alluringly arrest the attention."

Turning to the French delegates, Mr. Waterhouse said: "Messieurs les confrères français, notre ami Sir John Burnet, l'homme distingué, auquel nous accordons ce soir le couronnement de son travail, est en quelque sorte de chez vous.

"Ancien élève de votre superbe Ecole des Beaux Arts il a gardé toujours la main un peu française l'œuil un peu parisien.

"Aussi, en celebrant aujourd'hui sa vie, son art et ses triomphes nous offrons au même temps, du même coup, nos hommages a l'école de son origine."

"Sir John James Burnet, it is in the name of his Majesty and on the most cordial initiative of your fellow British architects that this medal is given to you. I am the most fortunate channel of the transfer from the King to yourself and I hope you will allow me to say with what pleasure and pride I now perform the last official act of my presidency."

The Royal Gold Medal was then fastened round the neck of Sir John Burnet, amid sustained applause.

SIR J. J. BURNET'S REPLY.

"MR. PRESIDENT, LADIES AND GENTLEMEN,—As exclusively a practising architect, whose life has been spent in meeting the responsibilities of the profession as they appeared to him, I feel peculiarly unfitted to do justice to the position in which, through your kindness, I now find myself.

"I am deeply conscious of the honour to which you, my fellow members of the Institute, have elected me, and profoundly sensible of the distinction conferred upon me by His Most Gracious Majesty the King in approving your choice. But I fear, Mr. President, in the all-too-complimentary remarks which you have made regarding my work—tempted perhaps by that splendid command of language which we all admire and wish we possessed—you attribute to my work qualities of which I was never conscious.

"Simple as architecture was at the beginning of my practice, now municipalities with a new realisation of their responsibilities aspire to the healthy housing of the working classes. Curative establishments are as numerous as they are complex, and merchants and manufacturers are housing their great and ever-changing organisations with a new responsibility towards their numerous employees. Thus, from being a simple problem it has become a complicated one.

"If it is true that an architect is here to serve his day and generation—and I think he is, and that it is at once his duty and his pleasure—what qualities must he not possess if he is to master all his clients' requirements and produce a building efficient for its purpose, suitable for its site, and so simple in its conception that it appears a perfect harmony, created without effort, a simple and beautiful monument to the integrity of purpose of the generation in which it was built. There is no spurious originality in such work, no conscious individuality on the part of the designer.

"Our late colleague, Mr. Ernest Newton, speaking on architectural education, referred to his belief that there is all the difference in the world between the acquisition of knowledge of the art of architecture and the ability to apply that knowledge to the varied purposes of the day, and urged that the power of applying one's knowledge will best be obtained by the young architects serving the older and more experienced men of the day. I cordially agree with him, and believe that, as the work becomes more complicated, the truth of his remarks will become more obvious.

"During my long practice, I have had many and varied opportunities, each seeming to be instinct with the life and thought of the day, and I have done my best to give each and all architectural expression compatible with its purpose, and that with such measure of artistic feeling as it was in my power to give.

"I have been favoured with the companionship of clients each keen on the purpose he had in view in building; with the enthusiastic and sympathetic assistance of my brother artists, sculptors and painters; and, in the execution of the work generally, with skilled craftsmen whose devotion each in their own craft went beyond payment.

"Could any architect desire more? Is it astonishing that he enjoys his practice; that he finds it difficult to do anything else than constantly, by travel and study, to make and keep himself equal to such work?

"Before I sit down I feel I must express my deep sense of indebtedness to all those who have been my assistants, many of them now in practice in different parts of the world, three being now my partners. Without their enthusiastic assistance and loyal sympathy I doubt if the work you have so generously approved could have been done.

"I again thank you, Mr. President, and through you my brother architects, for the great honour you have paid me in adding my name to the list of Royal Gold Medallists, containing as it does, the names of so many illustrious men, and you, I know, will understand me when I say that you could not pay me a greater compliment than to place me on a list bearing the name of my professor and life-long friend—Jean Louis Pascal."

Sir John Burnet, who had spoken with some emotion, resumed his seat amid sustained applause.

Speeches were then made by two members of the French deputation.

Mr. Arthur Keen, before making the business announcements, reminded the members that that was the last occasion Mr. Waterhouse would be taking the chair during his present term of office, though it was quite possible in the ordinary nature of things that a later period of office may succeed the present one. He believed the members all appreciated—certainly no one appreciated more fully than the speaker—the value of the services Mr. Waterhouse had rendered during the term he had held the position of president. It was something of a surprise from time to time to realise how much valuable energy Mr. Waterhouse was willing and able to devote to the service of his fellow-members. There was nothing he had not applied himself to with his utmost ability. Mr. Waterhouse had presided over their meetings with marked distinction and there was hardly an occasion when he failed to be present. He was a very worthy successor to a very worthy father who himself had held the position of president. Some of the members could remember with the greatest pleasure Mr. Alfred Waterhouse's tenure of office, and it would be a very long time before the Institute ceased to think with pleasure of the time Mr. Paul Waterhouse filled the chair. The Institute must be profoundly grateful for all he had done in advancing professional interests. In the matter of education, Mr. Waterhouse had distinguished himself exceedingly.

Mr. Paul Waterhouse having briefly acknowledged the speech and the applause which endorsed it, the meeting terminated.

The following are notes from the minutes of the Council Meeting held on June 11:—

Model Bye-Laws and Regulations for the Prevention of Waste and Contamination, etc., of Water.—Messrs. Max Clarke and Percival M. Fraser were appointed to represent the Royal Institute at the Conference summoned by the Ministry of Health to discuss proposals in the Model Bye-Laws prepared by the British Waterworks Association.

The Western Avenue.—It was decided to urge the Ministry of Transport and the Middlesex County Council to exercise their powers under the Development and Road Improvement Funds Act, 1909, to purchase immediately a strip of land of a width up to 440 yards in all in connection with the construction of the Western Avenue.

Treatment of Wastes in Rural Districts.—It was decided to urge the Ministry of Health to consider the issue of an appendix to their present Model Bye-Laws to the effect that in Rural Districts where the number of cottages does not exceed eight to the acre, such cottages should be exempt from the Bye-Laws respecting the prescribed treatment of the wastes from sculleries and sinks.

The Association of Transvaal Architects.—The Association of Transvaal Architects were formally admitted to alliance with the R.I.B.A.

The Northern Polytechnic Institute.—The Council accepted a gift from the Governors of the Northern Polytechnic Institute of a set of graphs showing the variations in prices of a number of building materials during the war period. These graphs have been placed in the Library.

The British School at Rome.—Sir Reginald Blomfield, R.A., was reappointed for a further period of three years to represent the R.I.B.A. on the Council of the British School at Rome.

The National Gas Exhibition, 1923.—The Council received and accepted an invitation from the Executive Committee of the National Gas Exhibition, 1923, to allow the Royal Institute to appear as a patron of the Exhibition. They also authorised the inclusion of the name of the President of the Royal Institute in the list of vice-presidents of the Exhibition.

Forthcoming Events.

Saturday, June 30.—Royal Institute of British Architects. Visit to the Pensions Building at Acton.

Architectural Association. Visit to Long Crendon Manor, Long Crendon, near Thame. Alterations and additions by Mr. Philip Tilden.

Monday, July 2.—The London Society. River Trip from Westminster Pier, 1.30 p.m.

Wednesday, July 4.—Royal Archæological Institute. Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Paper by Rev. J. K. Floyer, D.D., F.S.A., entitled "English Brick Buildings, Henry VII–VIII."

Saturday, July 7.—Edinburgh Architectural Association. Joint visit with the Glasgow Institute of Architects to the works of Messrs. Shanks & Co.

Homes of the Clergy.—III.

By Charles G. Harper.

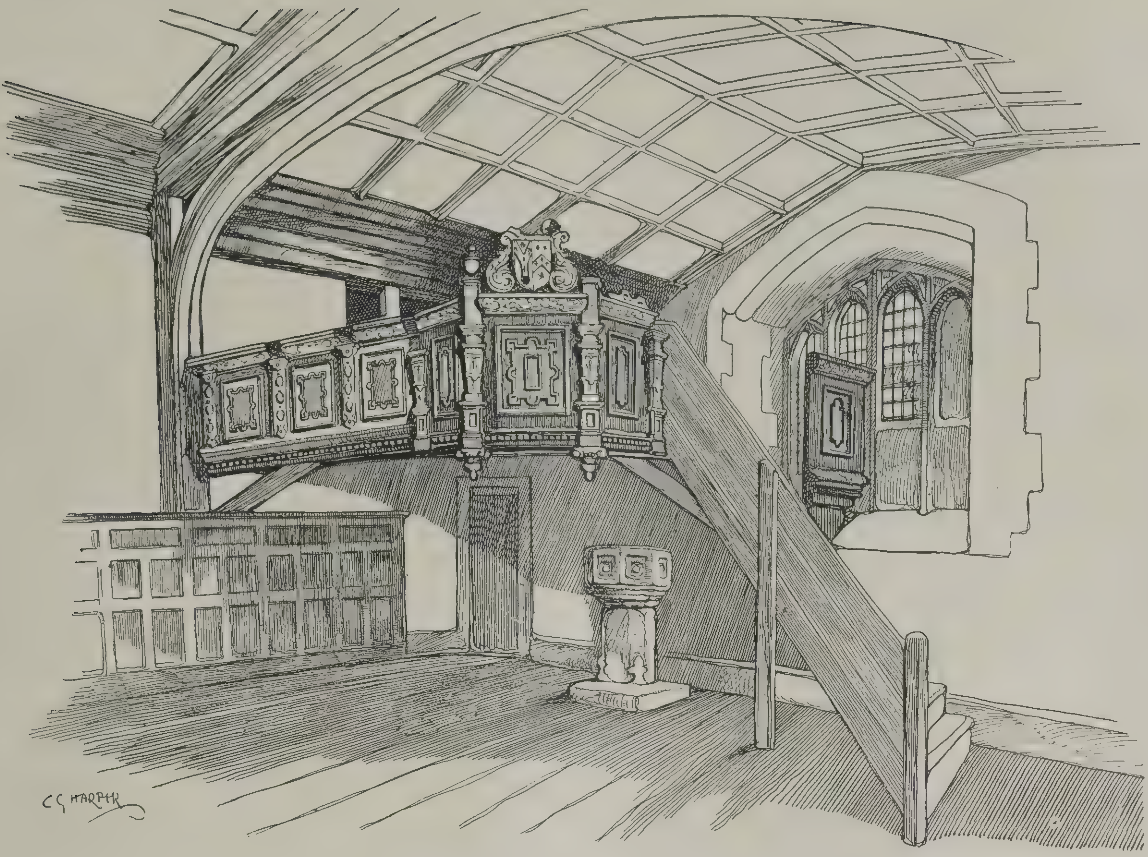
Times and conditions have now so altered that the governors of Queen Anne's Bounty (which many a clergyman will tell you is not so bountiful as its name would imply) and the Ecclesiastical Commissioners have authorised the sale of numerous among these undesired great mansions, intending that the proceeds shall be devoted to building or acquiring houses of a more modest scale and using any surplus for augmenting the value of livings. Thus, in 1921, was the rectory of Wrotham in Kent offered for sale. I instance this particular example because it is, even more than those already quoted, a specimen of extravagant housing. The auctioneer's particulars detailed a "Residence approached by a carriage-drive. Columned entrance porch, suite of four reception-rooms, entrance hall 23 feet by 15 feet, housekeeper's room, servants' hall and ample domestic offices; twelve bedrooms, two bathrooms, etc. A pair of cottages, large garage with pit, stabling, etc., and laundry." The "charmingly dispersed grounds" included a croquet and tennis lawn, walled kitchen-garden with greenhouse and forcing-pits, and "two excellent meadows": the whole property extending to 24 acres. So might a Bishop be housed; only perhaps Bishops nowadays are not always quite so elaborately circumstanced. Even so, the palaces of the Bishops, at the upper end of the scale, are at least as burdensome to those Right Reverends as are the homes of the minor clergy. The prime instance in this connection is that of Farnham Castle, the great Saxon, mediæval and later residence of the Bishops of Winchester for over a thousand years. The great see of Winchester is now partitioned into the three dioceses of Winchester, Portsmouth, and Guildford, and for the first time in its history the castle and deer park of Farnham is in the hands of estate agents. Thus passes the greater glory of one of the foremost ecclesiastical positions, held in ancient times by great and powerful men of affairs; great alike in the concerns of Church and State, and numbering among them such historic figures as Henry of Blois and William of Wykeham, and prelates who always have been, since its institution, chaplains of that foremost order of chivalry, the Most Noble Order of the Garter. The official income of the Bishop of Winchester is £6,500 per annum. Upon the partition of the see coming into effect, it will be but £2,000 or £2,500. Even the old income was not sufficient adequately to support this great place, and the proposal is now to sell it. It was about A.D. 860 that Farnham Castle began to be the stronghold and residence of the Bishops of Winchester. Architecturally, the fabric is extremely picturesque and interesting. It dominates impressively that broad street which rises at right angles out of the main road at Farnham. The tower seen in the illustration is that built by Bishop Fox in 1510. It is of red brick diapered diamond-wise in blue-black vitrified brick. It is not so lofty a tower as might be supposed from the illustration, for it stands on a height and its base is masked by foliage. The castle has seen fighting, having been besieged and taken in 1216 by the French, under the Dauphin of France, and retaken and again captured, two years later, when it was partly destroyed. Rebuilt in 1230, and altered and added to at various periods, it again underwent a siege in 1642, when the Parliamentary troops took and held it until the close of the Civil War, when it was dismantled. Morley, Bishop of Winchester, undertook great works of restoration at Farnham, from 1662 to 1684, in addition to building a palace in Winchester itself, in the grounds of the ruined Norman Bishops' palace of Wolvesey. A large portion of his Winchester palace was subsequently demolished, and the remaining wing has not for many generations been used as the Bishop's residence; but the irony of circumstance has now brought about a curious situation. There is talk of restoring that residence and of using it for the reduced Bishop of to-day.

FARNHAM CASTLE.

Something of the same story is to be told of Addington Palace, until some fifteen years ago a residence of the Archbishops of Canterbury, near Croydon. But the property was sold long before the present economic troubles and discontents arose. The Archbishop now has a residence at Canterbury itself, among his own people, as surely is only right and proper.

But the long, long story of the many palaces of the old Archbishops of Canterbury would, of itself, form a considerable volume, and cannot be treated of here, except for one curious and little-known relic at Croydon. One of those palaces was situated there, and was sold under the terms of an Act of Parliament of 1780. The building then became the factory of a calico-printer and a laundry. Some portions were demolished, the moat was filled up, the "minnows and the springs of Wandel," of which Ruskin speaks, were abolished, and mean little streets quartered the ground immediately adjoining. But although all these facts are very grim and grey, it must yet be said that the remains of that palace are very well worth seeing. The property was again sold, in 1887, and was purchased by the ecclesiastically minded Duke of Newcastle, who made it over to the so-styled "Kilburn Sisters," who converted the buildings into a girls' school. The historic remains have been well treated, under the eyes of expert and jealous anti-restorers. The Great Hall, chief feature of the place, yet retains its fifteenth-century chestnut hammer-beam roof and armorial corbels; the Long Gallery, where Queen Elizabeth danced, the State Bedroom, where she slept; and the Guard Room, quarters of the Archbishop's bodyguard, are all in existence; and the Chapel, with its oaken bookcases bearing the arms of Laud, of Juxon, and others,

BISHOP MORLEY'S PALACE, WINCHESTER.



"QUEEN ELIZABETH'S PEW" IN THE OLD ARCHBISHOPS' PALACE, CROYDON.

and the Archbishops' pew, have all been brought back to decent condition. Here, too, is the exquisite oaken gallery at the western end, known as "Queen Elizabeth's Pew."

The old Archbishops' Palace is thus one of the very few remaining of the ancient buildings of Croydon. The great parish church, hard by, with its noble tower, of perpendicular type, looks genuine; but it is a clever restoration after the melancholy havoc caused by the great fire of 1867. It is one of the few really successful works of Sir Gilbert Scott, in the restoration way; and for the reason that he was obliged to sink his own personal predilections and to reproduce exactly what had been destroyed.

A marvellously exact reproduction is the replica of Archbishop Whitgift's ornate monument, copied from paintings of the original, which had been utterly destroyed in the fire. His monument, as we see, has been lovingly reproduced, but his almshouses are at this moment again in danger of being abolished.

When we consider how utterly Croydon has been changed, well within the recollection of many people now living, from the likeness of a not very large provincial town to

THE BISHOP'S PALACE, WELLS.

the status of a county borough and a dormitory suburb of London, the transition appears really marvellous. But there, by the church and the remains of the old Archbishops' Palace, is something yet of the old Croydon of years ago. Not very much, perhaps ; just enough to prove to sceptical strangers, walking through these ultra-modern streets, that there was in fact an "old Croydon," that it was no myth, as might perhaps be supposed. But, of course, the old Palace of the Archbishops being private property, this one gem is not only unexpected but not generally to be seen.

Incomparably lovely in its every circumstance, the Bishop's Palace at Wells has the interest of antiquity as well as of yet being, as it has been for at least seven hundred years, the home of the Bishops of that see. It is the work, in its older portions, of Bishop Joceline, 1206–1242 ; and of Bishop Burnell, 1274–1292 ; while the oriels projecting from the north wall and overlooking the moat (shown in the accompanying illustration) were added by Bishop Clarke, 1523–1540. The Palace stands within the beautiful Cathedral Close and is completely surrounded by a moat of clear running water from one of those perennial springs after which Wells ("Fontes," as the old monks in their Latinity loved to write it) is named. The Palace grounds are entered by a drawbridge over the moat and through the archway of a fourteenth-century gatehouse. Within this enclosure you see the ruins of that part of the Bishop's residence which was dismantled by Sir John Gates in the time of Edward VI., and the further portions destroyed by Dean Burgess for the repairing of his Deanery. Bishop Kidder and his wife were killed as they lay in bed in the neglected Palace by the great storm of November 16, 1703, which blew down a stack of chimneys.

(*To be continued.*)

The Architecture Club.

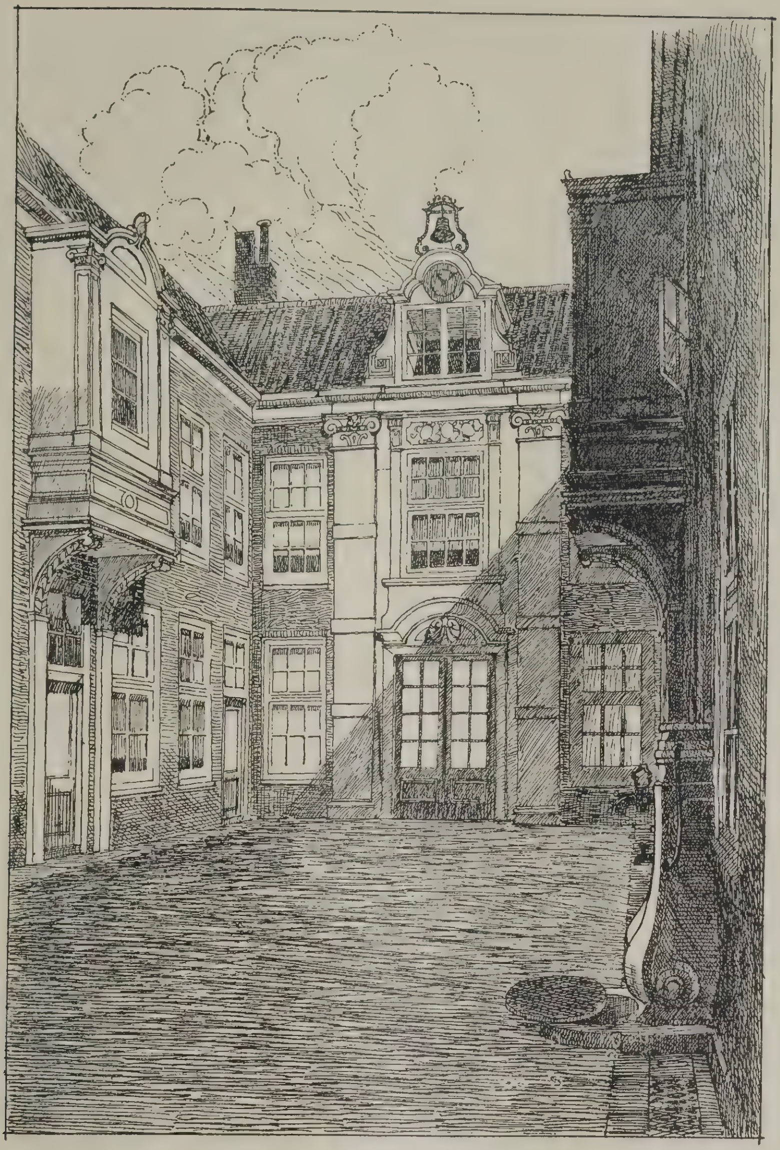
The fourth quarterly dinner of the Architecture Club was held at the Hotel Cecil on Thursday, June 21. Mr. J. C. Squire (President) in the chair.

Among those present were : Professor and Mrs. S. D. Adshead, Mr. William Archer, Dr. G. Assinder, Major the Hon. J. J. Astor, M.P., Mr. C. A. Barman, Mr. and Mrs. Oswald Barron, Mr. Detmar Blow, Mr. R. S. Bowers, Mr. Herbert T. Buckland, Mr. E. Stone Collins, Sir Algernon and Mr. A. J. Tudor Craig, Mr. Ewart G. Culpin, Mr. A. J. Davis, Mr. Rudolf Dircks, Mr. and Mrs. J. H. Elder-Duncan, Mr. W. Curtis Green, A.R.A., and Mrs. Curtis Green, Mr. and Mrs. G. Kruger Gray, Mr. and Mrs. C. Lewis Hind, Mr. and Mrs. Stanley Hamp, Mr. and Mrs. H. Austen Hall, Mr. E. Vincent Harris and Mrs. Harris, Mr. Ambrose Heal, Mr. P. D. Hepworth, Mr. Edward Hudson, The Very Rev. Dean Inge, Mr. Ralph Knott, Mr. and Mrs. H. V. Lanchester, The Hon. Lionel Lindsay, Mr. and Mrs. F. Maude, Mr. and Mrs. Charles Marriott, Mr. and Mrs. Oswald P. Milne, Mr. George Murray, Sir Frank Newnes, Bart., Mr. Frank Pick, Mr. Henry Poole, A.R.A. and Mrs. Poole, Mr. A. R. Powys, Mr. and Mrs. Stanley C. Ramsay, The Viscountess Ridley, Mr. and Mrs. Douglas Rowntree, Mr. Charles Sims, R.A., Mr. and Mrs. J. C. Squire, Mr. L. Sylvester Sullivan, Mr. Walter Tapper, Mr. Philip Tilden, Mr. H. J. Ward, Mr. and Mrs. Clough Williams-Ellis, Mr. J. Hubert Worthington and Dr. Maurice Wright.

After the toast of "The King" had been honoured, the Chairman proposed "Architecture," and in doing so, said he would, with their permission, talk more about the Architecture Club than about the actual toast. He claimed that they had been steadily improving from one dinner to another by reducing the number of speeches, and these had now been cut down to four. When they last met at Grosvenor House their first annual exhibition was not finished. He had then made certain rather optimistic predictions as to what would be likely to be the results of that show. The audience would be pleased to hear that those expectations were fulfilled, that their best hopes were fully realised, and that the guarantors would not be called upon for one penny. The show to all intents and purposes, though necessarily involving great expense, nearly made ends meet, and the little difference would be defrayed from the ordinary funds of the Club. But something more had happened. There was present at that dinner an Alderman from the City of Manchester who had come up to see if the Exhibition was worth being transferred there. The Alderman inspected the show and apparently he gave a favourable report, as his return was followed by a request for the show and in due course it proceeded to Manchester. The Club had since received a report from the Curator as to its very great success during the five weeks and stating that twenty-two thousand people came to see it. In London they had six thousand visitors, but these had paid an entrance fee ; in Manchester they did not. But, at any rate, the latter went to see it. At the present moment the Club was negotiating with four other provincial cities anxious for the Exhibition. It looked as if the 1923 Exhibition was going on the road like a travelling circus. The Committee was considering their plans for an Exhibition next year ; but it was too early to make any definite pronouncement with regard to it. Of course there would be one section for current work and others perhaps for town planning, gardens, and what not. One suggestion was that they should have a room devoted to very bad buildings. Such a collection might be got together without much difficulty, for he thought they could find two or three hundred such buildings without going farther than London. Allied to that was the suggestion that the Club should extend its activities and organise an incendiary branch which should start a second Fire of London, to begin perhaps where the first left off. He dare not openly in public do anything but reprobate that suggestion and leave it at that. The originator of the idea did not wish to destroy Wren's churches in the City ; but beyond the borders of the City there were large areas which might very well be destroyed without injury to anyone except the owners of the property. When one said so much one was thinking of the present of architecture and in particular of its future. He at least would not stand there and drink to the architecture of the immediate past—and, least of all, within those walls. With regard to Mr. Curtis Green, who was to respond to the toast, he need make no reservations whatever. Mr. Curtis Green was the latest Associate of the Royal Academy and was, moreover, one of their earliest members : indeed, Mr. Curtis Green seems even to have paid for the dinner at which the idea of an Architecture Club was first mooted. Moreover, he was an architect of whose works they could all approve, whether it was his Chepstow contribution to the housing campaign or Wolseley House in Piccadilly. The latter building had been one of the great attractions in the commercial section of the Club's recent exhibition and had been awarded the R.I.B.A. medal for the best street front.

Mr. Curtis Green, A.R.A., responding, said they had been told that Architecture was the Cinderella of the Arts. There was nothing very amusing about Cinderella : she was, however, very nice and so came into her own. The existence of the Architecture Club and the presence of so many there that night was one of the indications that Architecture, too, was coming into her own. The other day he had been talking to an R.A. sculptor, who said his personal opinion was that the greatest living artist of to-day was an architect. On being hastily agreed with, the sculptor added "Why not ?" Every form of art demanded the whole of a man ; but surely none demanded so much of its followers as architecture. It was pleasant to think that the numbers of the clear-sighted were growing, and that the younger men who have been educated since the war have a much better insight into what architecture really was than has ever been possible before. They possessed all the old enthusiasm and yet they did not take themselves too seriously ; they had more vision. Architects owed an enormous debt of gratitude to the great architectural schools of this country for the extraordinarily fine work they are doing. He could hear pessimists talking about the new Regent Street and comparing the grace and dignity of the old with what has taken its place. There were several answers. One was that the new Regent Street was not being built by the new men but by the old, who were trying to catch up with the new. There were several living architects who, in his opinion, had produced greater work than any done in Nash's time, and there were many following those men. The encouragement which Mr. Squire had so ably inaugurated would be an immense assistance : the garden had been till lately covered with weeds ; but people had now caught sight of the flowers and were beginning to take a real interest in it. Architecture to-day called for two things—first, it wanted more faithful and educated service from its followers, who having soaked themselves in tradition wanted to feel they could touch the necessities of those who employ them into some lightness, some grace, and even, perhaps, some beauty ; and, secondly, more understanding from the general public, in which direction the Press could do much to help. It was a curious thing that in America all the big buildings go to the big men. The American business man certainly expected to have value for his money. Here if any prominent building went to a good man it was an accident. Many practised in the name of architecture who knew her not. She was to be found in unexpected places, ready, if she be permitted, to take a larger place in the cities and the hearts of the people when called upon to do so.

Mr. A. P. Herbert proposed "The Club," and Mr. Oswald Barron, F.S.A., replied.



OLD HOLLAND. By G. G. WORNUM.

"Edinburgh : Its Rise and Progress."*

By T. P. Marwick, F.R.I.B.A.

PRELIMINARY.

The city is readily separable into two parts, the "Old" and the "New." Let us look at "Old Edinburgh" first. One never hears the words but they seem to ring a call-bell in the brain. They are woven into the very texture of our lives. Instantaneously, as by the quick turn of a kaleidoscope, we visualise a series of pictures of our ancient burgh all down the centuries. The whole scenic development flickers on our mental screen like the film of a cinematograph. To residents it is a subject of perennial interest, possesses an extraordinary fascination, and has a subtle magnetism emanating from their knowledge of its historical development, their daily contact with its many picturesque features, and their natural pride in its prestige as the ancient capital of their beloved country.

On arrival in the city the eye naturally gravitates towards the Castle, as no doubt did that of the military Roman. This rocky crest at once attracts attention as a natural fortress of great strength, and capable of ready defence. Its existence, coupled with the configuration of the land around it—moulded by Nature in the distant ages of the prehistoric past—determined its destiny. Around this coign of vantage clustered the huts of our forefathers, while the natural ridge, about a mile in length, which stretched eastwards, until it reached the valley 300 feet below in which the monastery of Holyrood ultimately came to be built, was the inevitable line of its growth. You are sitting now about the centre of this ridge, which has been called the backbone of the old city. The beginning took the form of wooden, straw-thatched houses, which were destroyed and replaced time and again in the constant ebb and flow of the struggle for possession and mastery, until the light of history dispelled the veil of mystery which enshrouded it. We need not count the work of the Romans in the first five centuries of our era, nor that of the Anglo-Saxons in the next. These years may be epitomised as alternating periods of peace and war, with the castle as the object of possession, until in 1020 it became the residence of royalty on the cession of the Lothians to the Scots. In 1093 Queen Margaret, wife of Malcolm III., died at the Castle, and you will to-day see her little chapel with some of its Norman architectural features still intact.

About 1128 King David I. founded the Abbey of Holyrood at the foot of the slope on the site of a pre-existing Celtic church.

In 1174 the castle was surrendered to Henry II. In 1186 it was restored to the Scots on the marriage of the king to an English princess. In 1230 Alexander II., who also married an English princess, resided in the castle and founded the Monastery of Blackfriars. In 1291 the town and castle were surrendered to Edward I. In 1327 Robert I. held a parliament at Holyrood. In 1332 Edward III. plundered the city, and, indeed, it may be said that Edinburgh was a veritable cockpit wherein the two nations were constantly in the ebb and flow of war, with attacks, defeats, victories, surrenders, and bloody battlings too numerous to chronicle.

When Froissart, the French traveller, visited Edinburgh in 1364, he described it as containing about 400 houses and 2,000 of a population. He calls it the "Paris of Scotland." In the year 1385, when Richard II. made an unwelcome call, he amused himself by reducing this rather meagre town to ashes. In 1544 the same thing occurred under the Earl of Hertford.

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* A Paper read at the British Architects' Conference held at Edinburgh, June 14, 1923.

Those were the little amenities which were being constantly exchanged between England and Scotland before the days of British Architects' Conferences.

In 1437 Edinburgh became the capital of Scotland and James II. was crowned there, and by charter dated at Stirling in 1450 conferred the privilege "to fosse, bulwark, wall, tour, turate, and utherwais to strengthen the burgh, in what manner of wise or degre that beis maist spectefulle to the provost, etc., of Edinburgh who lived at the time in dreed of the evil and skaith of our enemies of England."

In 1460 this defensive wall was built. Only two sides of the city required to be enclosed, as the Castle, and the North Loch which filled the valley in which is now the Railway Station—a convenient place for the ducking and drowning of witches—protected the other two. Indeed, the whole length of walling was only 1,660 yards, and the total area enclosed was but 55 acres, or one-twelfth part of a square mile. After Flodden in 1513 the area was extended by building a new wall at the base of the escarpment, for the protection of the houses which had been erected outside the original wall of circumvallation. Another extension was made in 1620. Still at the time of the Union with England in 1707 the enlarged area was only 117 acres. I had a rather unique opportunity some years ago of measuring a portion of this wall and found it to be 18 feet high and 5 feet thick. Although long since destroyed, there had been a parapet on the top, for it is so stated in a document of the time, and it is there given as 6 feet high and 2 feet thick, with embrasures for cannon. The total height of the wall was, therefore, about 24 feet. It formed a good protection in such times, and, indeed, was described as "of vast strength." But strength is a relative term. The weapons of to-day would have made it crumble to pieces as rapidly as those of Jericho did on much less provocation.

It has been found from an examination of early charters that most of the sites on the main street were only about 25 to 30 feet in width. The original buildings had back gardens stretching down the slope to the loch on one side, and to the valley of the Cowgate on the other.

As congestion increased within the restricted limits of this mediæval walled city, each owner rebuilt the front tenement, and formed an opening or access archway and pend through it. A narrow open close, a few feet in width, was then continued for the remainder of the length down the steep hillside. These closes were private property, and were margined with lofty buildings in long parallel ranges, with quaint corbellings, timber projections, dormer windows, outside stairs and piazzas, all in picturesque combination. In the houses resided aristocratic denizens and legal luminaries arranged in six, seven, eight or nine horizontal layers one above the other. Sanitation was an unknown science. While "the far away and long ago" has a strange fascination, we may all agree with Anatole France when he says that "the charms of the past exist only in our dreams!" There was no privacy. You could shake hands with your neighbours across the close, for successive projections nearly met each other and left visible but a streak of sky. You could readily sense his dinner menu, hear his wife expatiate to him on matters of domesticity and teapot humdrum, or listen to the pleadings of his progeny when Solomon's apophthegm as to the chastening of a son was being given practical demonstration. No more insanitary arrangement could have been invented, the one and only merit being the closes ran north and south and were swept by the prevalent winds. In the closes of the Canongate alone, as late as 1769, there were living two dukes, eighteen earls and countesses, fourteen lords, thirteen baronets, and a host of eminent men.

I have measured and ascertained that there were over ten miles of these closes on the main thoroughfare, while the gradients showed the difference in level between one end and the other to be sometimes as much as 100 feet. There were 294 closes exclusive of those in the suburbs.

The city continued to grow in this restricted area, and these lofty structures became the prototype of our tenemental development. It was the beginning of intensive and extensive exploitation of central land areas. Here was a great congeries of buildings filled with people all huddled together for mutual protection. It was no doubt vastly picturesque and interesting, with its turnpike stairs, its turrets, its quaint mottoes, its pious inscriptions, its coats of arms, its crow-stepped gables, and its panelled walls. But to-day where they still exist they spell of the peril of disease. There are fifty thousand souls resident in the two central wards of St. Giles's and Canongate alone. In one common stair quite recently there were forty-six separate houses. Incidentally I may mention that there are 150 licensed shops in these two wards, or one-fourth of the whole number in the city. Misery and death lurk in such an environment which is so far behind present-day ideals. Infantile mortality in a modern garden town like Letchworth is at the rate of 30 per 1,000. In these wards it is 134, or 4½ times greater. One's heart bleeds for the children reared in such surroundings. The death-rate is double what it is in the suburban districts. The density of the population in one ward is about 100 per acre as compared with an average of 13 for the whole city, which shows that there is a relationship between the death-rate and overcrowding. As the Italians say, "Where the sun does not go the doctor goes."

Edinburgh has at the present time a very enlightened Corporation, and they are making strenuous efforts to improve matters. You can understand, with a city built for defensive purposes on the lines described, how slow, how difficult, and how expensive a matter this must be. Care is being exercised to preserve our historical structures. Too many have been destroyed in the past, but there is now a strong desire to have what is left preserved and restored to healthy habitability, handled reverently and with sympathetic care. They do not desire to make a fetish of antiquity, or to cultivate a spurious veneration for what is old simply because it is old, but they have no sympathy, I am sure, with vandalism carried out in small systematic doses until no shred of the original is left. The history of a nation is written in its buildings. They record with unerring precision its age and fateful past. They are the milestones on the highway of civilisation and progress.

NEW EDINBURGH.

Let us now look at "New Edinburgh." Up to about 1750 the city was confined to the district lying between the Castle and Holyrood. With the Union there came a slow-growing desire for betterment. The citizens determined to burst the cincture which girded in these congested masses of people.

In 1763 the North Loch was drained, and the North Bridge was commenced, which was to give access to the fertile fields towards the estuary of the Forth. It collapsed in 1769 during construction, but in 1772 it was finally completed and opened. It was then decided to hold a competition, with the view of endeavouring to obtain the best lay-out for the ground to be built upon, and that by Mr. James Craig was selected and adopted in 1767. His scheme embraced the whole length of Princes Street from east to west, and from Princes Street to Queen Street Gardens from south to north. George III. was much interested in the scheme, hence the names of George Street, Charlotte Square (after his Consort), and Princes Street (after his heir). The plan consisted of a series of parallelograms, long vistas margined by uniform rows of houses, with gardens and squares. As showing the appreciation of the people at that time, the successful architect was honoured by being presented with a gold medal and the freedom of the city. One would like to see to-day similar public appreciation when good work is done by members of a noble profession.

By the year 1800 the whole scheme had been completed. The area north of Queen Street Gardens from Bellevue Crescent to India Street was then undertaken in 1806, all plans being matured by agreement between the various owners and feuars. This method was unfortunately abandoned at a later date and individual landowners developed their holdings independently. Co-ordination is essential if any satisfactory scheme is to be evolved for the development of a city.

In 1816 Mr. W. H. Playfair, the architect, prepared a plan for the lay-out of ground towards Leith Walk and Easter Road, but only London Road, Hillside Crescent, Royal, Regent and Carlton Terraces were ever executed. The remarkable thing about these schemes was the entire absence of areas for public works. It appeared as if all the inhabitants of Edinburgh were to be residents of means living in large self-contained mansions.

In 1768 Craig had little to inspire him in the way of town planning on spacial lines. It is true that Sir Christopher Wren in 1666, one hundred years before, had designed a lay-out for the City of London immediately after the Great Fire. It was a magnificent plan, comprising the area within the Walls from Ludgate to Aldgate, and Billingsgate to Cripplegate, but it failed to materialise owing to the cupidity of the owners. If it had been carried out, it would have proved an immeasurable boon and saved millions of money. Wren's plan, again, was no doubt inspired by that of his predecessor, Inigo Jones, at Lincoln's Inn Fields, and possibly by Bernini's plan of the approaches to St. Peter's at Rome. Edinburgh, however, was undoubtedly a pioneer in town planning on a large scale, although Bath had "Queen's Square" in 1729 and the "Circus" in 1764. It has been called "the greatest scheme of the age," but, of course, as we all know, many ancient cities were specially planned. The plans carried out combined dignity, wide roadways, ordered buildings, long vistas, and tree-clad squares and terraces. Their practical realisation, no doubt influenced the town-planning schemes of to-day.

I may note that Edinburgh Town Council is still faithful to past traditions. A Consultative Committee has been recently appointed to co-operate in the work of developing the city on right lines, to have its growth carefully and systematically regulated, to have faulty street planning prevented, and objects of historic interest preserved. There are two architects on this Committee. By and by one hopes there will also be an Advisory Fine Arts Committee such as exists in New York and other American cities, to influence the production of worthy buildings, and to see that all the accessories of a beautiful city are created and maintained.

If you look at the Register House building designed by Robert Adam, which is a gem in its way, and consider what efficient town planning in the eighteenth century could have done when land was practically available free, you can see what a splendid opportunity was lost for the creation of a fine Civic Centre. It was an irreparable error caused by lack of wise forethought.

I may explain that the English leasehold system does not obtain in Scotland. Building land is given off in lots by way of perpetual feu. The total ground rents obtained for the whole area first described in Princes Street was only equal to an average capital value of 4d. per square yard. Parts of this land now fetch £100 to £150 per square yard, or nine thousand times the price it was 150 years ago. This increment does not improve the financial position of the original landowner. It passes entirely from owner to owner of the property, and finds expression in the price obtained.

Public Parks and Open Spaces.

Coming now to public parks and open spaces in the city, I may say that the total area of these extends to 1,836 acres, or one acre for 229 souls. This includes Leith, which, previous to amalgamation, had only one acre to 1,148 souls. There will be further liberal allowances in the future, but at present there are 36 public parks, 73 tennis courts, 29 bowling greens, 4 golf courses, 10 short hole and putting courses, 68 football pitches, 9 cricket pitches, and 15 children's playgrounds and gymnasia. The American Park and Outdoor Association, in its report for 1901, suggested as an ideal one acre to 200 inhabitants, while other authorities propose one acre for 250. Edinburgh, having already one acre for 229 inhabitants, occupies a very favourable position.

The citizens are fully alive to the necessity for a spacious environment, an amplitude of open areas for parks and recreative purposes, as tending towards a gradual and sustained improvement in the physique of young and old. As a community our desire is to reach out towards a higher standard of civic life.

Statistics.

As to statistics, I have mentioned that in the year 1300 the population was 1,200, and in 1364 2,000. By the year 1800 it had increased to 67,000, by 1851 to 160,000, while to-day it is 420,000, or 210 times larger than in Froissart's time. You have heard that the total area enclosed within the fortified wall was originally 55 acres. To-day it is 32,401 acres, or 50½ square miles—that is, 589 times larger. It is much larger than Glasgow, Liverpool, Manchester, Leeds, Sheffield, or any other provincial city except Birmingham.

Since the recent extension there are now only three administrative authorities in the city in place of fifteen, and two rating authorities in place of ten.

The gross yearly rental value is just about five millions, while the assessable rental is £4,382,955. The total rates on owner and occupier combined amount to 8s. 6d. per pound, but it may be explained that the burgh rate is chargeable on the gross rent, and not on the net as in England. The municipal debt is only six millions, whereas Leeds, Sheffield and Bristol, with somewhat similar populations, have respectively twelve, ten, and nine millions. The debt of Manchester is twenty-two, Birmingham eighteen, Glasgow fifteen, and Liverpool ten millions.

Industries and Manufactures.

Edinburgh is a university town and a great educational centre. It is the seat of the Supreme Courts of Law. It is the home of many industries, and is in the vicinity of a network of coalfields and the principal shale areas of the country. It was one of the first places to possess a printing press. In 1507 one was set up in the Cowgate, and a copy of the Bible at that time cost £4 13s. 4d. All persons worth £500 were compelled to buy a copy or pay a fine of £5. About 1750 the city became noted as a printing centre, and obtained a world-wide reputation which it still maintains. There are quite a number of breweries, which are dependent upon a constant supply of permanently hard water of a peculiar quality obtained from the strata of the Upper Old Red Sandstone as developed in the southern district of the city. Paper manufacturing is a considerable industry, the raw material being landed at Leith—linen rags from Central Europe, esparto grass from North Africa, and wood pulp from Scandinavia. A large amount of milling and baking is done, while the city is surrounded by a rich agricultural neighbourhood. In commerce and finance 40,000 people are engaged, in shipbuilding and engineering 20,000, in the professions 16,000, in printing and papermaking 12,000, in the building trades 8,000, in rubber manufacture 6,000, while large numbers are employed in the manufacture of food and tobacco.

Edinburgh is one of the largest distributing centres of electrical power, and that should prove a powerful attraction for new industries. There is no doubt that large works in a city tend to bring others, while the bigger the city the more powerful the influence it exerts over industries. Edinburgh may become a great seaport, for it possesses 333 acres of docks at Leith, and has a magnificent seaboard ten miles long. We see visions that in the near future it will be a throbbing hive of industry, and a centre of great commercial importance.

Architecture.

As to the architecture of Edinburgh, there is no need to refer further to what is interesting or worthy in our old buildings. The architectural features of the Old Town have been sufficiently indicated. The towers, turnpike stairs and crow-stepped gables and other picturesque features were chiefly influenced by French examples, the result of the close association between Scotland and France in the Middle Ages.

Of late eighteenth-century work, it may be noted that Robert Adam designed the University, the Register House and Charlotte Square. Charlotte Square is a good example of Adam's work. It is all his design except the church on the west side, which is by Sir Robert Reid, and much inferior. Thomas Hamilton designed our magnificent High School, and W. H. Playfair the classical Galleries in Princes Street. Other interesting structures, in addition to those to be examined to-day, are Craigmillar Castle, Greyfriars Church, McEwan Hall, St. Giles's Cathedral, Thistle Chapel, George Heriot's Hospital, Stewart's College, Fettes College, Scott Monument, and some fairly good modern buildings, but not so good as they might be. The Dean Bridge is a fine design by Telford. Ruskin said: "Of all the cities in the British Isles Edinburgh is the one which presents most advantages for the display of a noble building, and which, on the other hand, sustains most injury in the erection of a commonplace or unworthy one."

Distinguished Inhabitants.

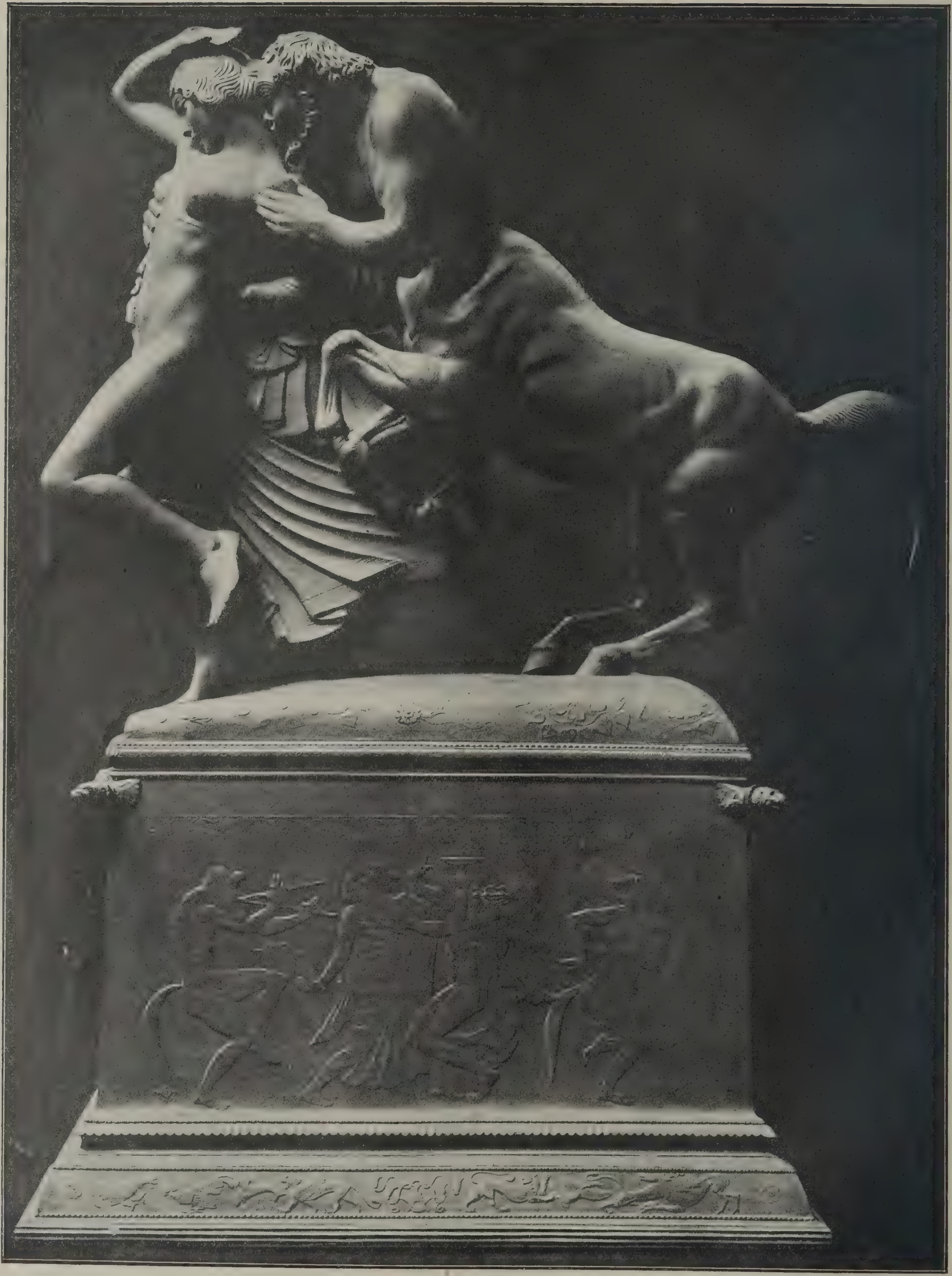
Of the great people of the past who were natives of Edinburgh, have lived in, or been closely associated with it at some period of their lives, I need scarcely speak, as their names are familiar to everyone—Mary Queen of Scots, Charles Edward Stuart, John Knox, Sir Walter Scott, Robert Louis Stevenson, Carlyle, Adam Smith, David Hume, Allan Ramsay, Dr. John Brown, Robert Fergusson, Jeffrey, Brougham, Cockburn, Drummond of Hawthornden, Mrs. Oliphant, Smollett, Oliver Goldsmith, Shelley, "Christopher North," Sir David Baird, the hero of Seringapatam, General Dundas, who captured Cape Town, Admiral Duncan, the hero of Camperdown, Burns, De Quincey, Boswell, Sir James Simpson, many eminent artists, and endless others.

Conclusion.

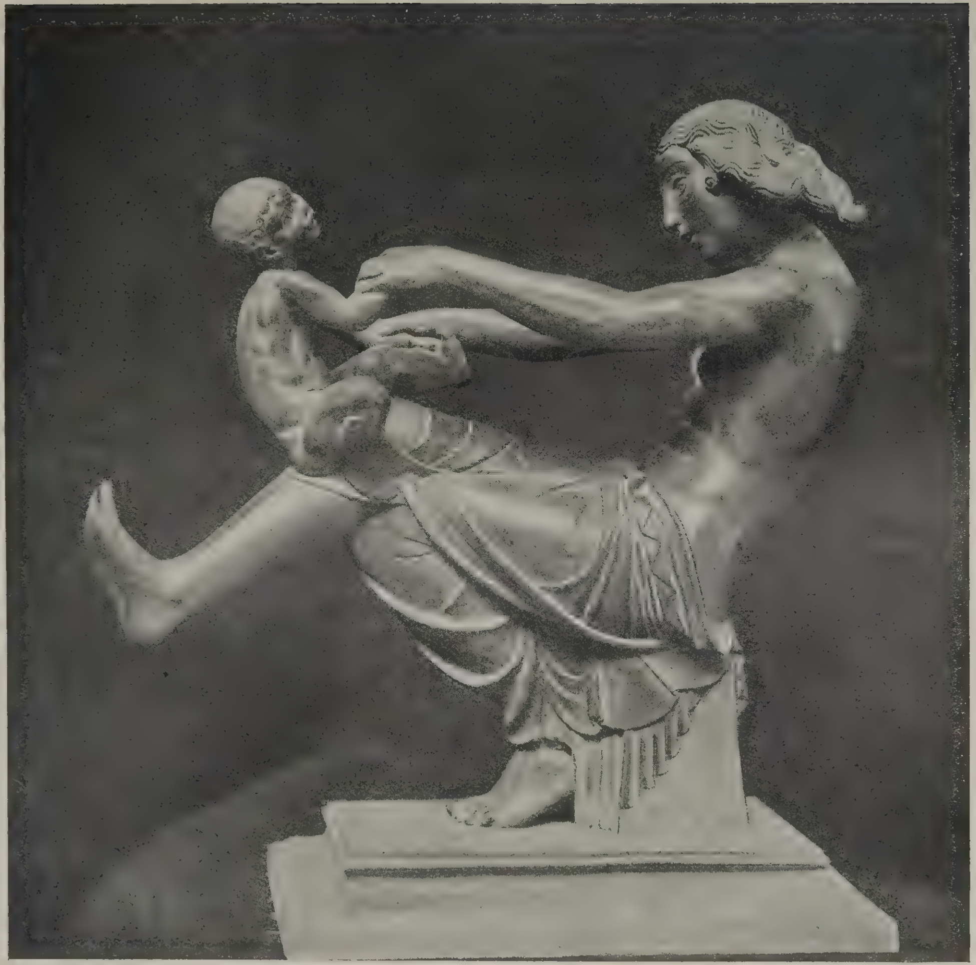
I have now shortly and hurriedly given you a little sketch of the fundamental facts about this city. Its topography, its bourgeoning and blossoming down the centuries, its historical development, its architecture, statistics, open spaces, industries and manufactures, and the procession of notabilities who knew it for the brief years which constituted their lives before passing into the Great Silence. Generation after generation has arisen to come under the spell of its glamour and magic witchery. It is a city which attracts and lures everyone from far and near, nor do they ever weary of hearing again, and yet again, its old, old story, for it is a subject somewhat akin to human love and human frailty, ever old yet ever new.

I ask you to go out into the fair fields which environ the city and, from a lofty view-point, look towards it when it is bathed in the golden haze of the noonday sun, lustrous, burnished, radiant. There it lies between the foothills of the Pentlands and the sea in all its picturesque fascination, surrounded by the everlasting hills, those silent sentinels which brood over it through the centuries like a mother over her children. Mark its towers and its spires piercing the skies, and if you come to it as a stranger in a mood of peace and restfulness you may say, "This is a Dream City," and you are not, as you may be in the Orient, disillusioned on closer acquaintance. You will not deny that it is a city redolent of charm and beauty : : a city of castle, sea and distant mountains; a royal and incomparable city; one of the grand and glorious cities of the world; a city full-charged with the pathos and tragedy of the past; no mean city, but a city one could live and die for; a city set on a hill which cannot be hid; a city which comes whispering her enchantment to all those who love her, a city

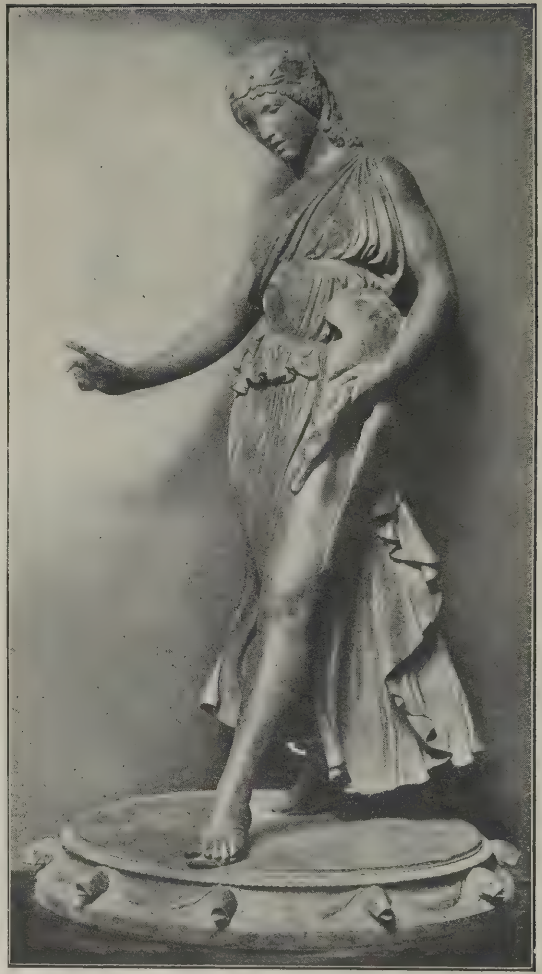
> "Piled deep and massy, close and high,
> Mine own romantic town!"



CENTAUR AND DRYAD. PAUL MANSHIP, Sculptor, New York.



"PLAYFULNESS."
PAUL MANSHIP, Sculptor, New York.

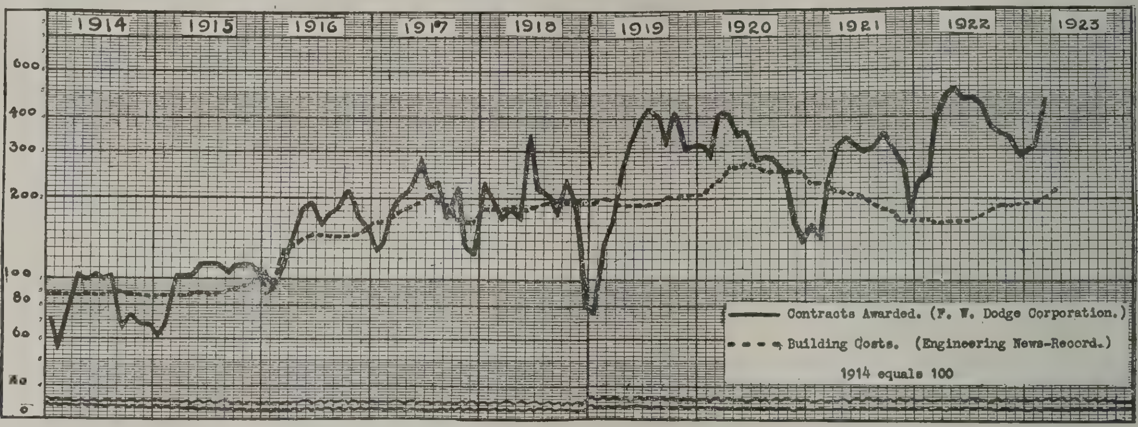


"DUCK GIRL"—FOUNTAIN FIGURE.
PAUL MANSHIP, Sculptor, New York.

Economic Factors which Underlie Construction Activity.*

Building costs are still rising. The present indications are that their advance has not yet reached its termination, and that expenditures are likely to maintain this strong upward movement throughout the season of heavy construction which normally spreads itself over a period extending from March or April to November.

The increased expense of building has had a variety of effects upon the industry. In the first place, it has prompted the Government to hold its construction programme in abeyance until prices and wages are lowered. Of itself, this policy on the part of the Government is not material at this time. The significant feature of it is that Mr Hoover's letter has stimulated a great deal of prudent and independent thinking on the part of the thrifty-minded, who feel that contemplated building will be ultimately more profitable in a state of contemplation than in process of actual execution. Architects have already sensed and many have encountered this wave of caution that is sweeping the whole industrial field at the present time. As far as the building and construction industry is concerned, this precautionary feeling on the part of those who can postpone building will become increasingly crystallised as the boom matures and costs advance. Rising costs have had still another effect. They have been directing their efforts, and not without results, to the flattening out of the peak of construction activity, with an effort towards prolonging its life. In the first quarter of 1921 building advanced at the average rate of about 45 per cent.; in 1922 these strides were increased to approximately 75 per cent., but during the current year the increase has dropped back again to nearer 55 per cent. The old rate of acceleration, apparently, is not being sustained. Rising costs and their inevitable consequences, then, must suggest rather forcibly to the architect that a time for some sort of reaction is gradually approaching and is now not far removed; that the construction boom is entering its most uncertain stages; that it is unwise to advise clients to launch upon a scheme of building expansion at the prevailing price of materials, wages and money; and, finally, that those who have built for speculation or investment should seriously consider realisation of their paper profit.



During the last twelve months the expense of building has risen approximately 30 per cent., according to the index published by the "Engineering News-Record." Since January 1 this year the rise has been more than 10 per cent. Costs have already risen more than 100 per cent. above what they were in 1913. An examination of the economic trends underlying the price of building materials, the tendency of wages, and the cost of mortgage money indicates rather pointedly that more advances are due.

Prices of building materials have been rising steadily for more than a year. Their gain, according to the Bureau of Labour statistics, has been more than 25 per cent. This advance has been brought about by the phenomenal activity within the industry, pictured graphically in the chart accompanying this article. Another contributory cause has been the extraordinarily active winter that has prevented the dealer from accumulating his normal inventory to stock his spring business. Inadequate shipping facilities have accentuated this irregularity, and in many instances it has loomed into serious and expensive shortages. Prices mounted in an attempt to curb this exceptional demand, and premiums were offered for prompt delivery.

Now, to-day, conditions have changed only slightly, but in these unsubstantial alterations the inception of some significant movements is discernible. Activity is still very intense, and the surge of spring business, which swept the industry at the approach of clement weather, turned meagre stocks into shortages almost over night. Yet, curiously enough, materials prices have displayed, with few exceptions, varying degrees of hesitancy. They have halted, some of them, temporarily perhaps, in the pursuit of their main and apparently avowed course. Lumber, especially, has been surprisingly steady. Orders have slipped into third place and are being surpassed now by statistics of production and shipment. Cement, the most stable of builder supplies, remains unchanged in price. The brick market, on the contrary, discloses elements of strength and buoyancy. Demand at the present time is greater than the available supply. Manufacturers' stocks in the popular shades are badly depleted, and the indications are that the market will continue to display strength for some time yet. Lime, plaster, sand, gravel, stone and other materials all reflect the welling-up of spring and early summer business, with prices steady and advances fractional and rather reluctantly made. Steel has been the outstanding exception of the entire list. Quotations are exceptionally buoyant, and seemingly headed for higher levels. Demand is very heavy and new business is being booked for delivery late in the third quarter. Prompt delivery commands a substantial premium. Now, the architect asks, why in light of unparalleled March business has the advance in materials prices hesitated? Several answers suggest themselves, and very likely all are in a measure responsible. Materials prices follow general commodity prices, and these during the last month have felt or sensed the sting of consumers' resistance once they have reached a certain level. In an effort, too, to hold materials prices in line with the advance of prices of general commodities, manufacturers and dealers have made genuine efforts to restrain the advance of the market of the particular commodity in which their interest has been centred. Moreover, the rise in general building costs has postponed automatically an indefinite amount of building. And, finally, the shipping situation, still far from pleasing, has shown some definite improvement. The number of requests for cars in excess of the supply is constantly dwindling. The motor facilities of the roads offer a greater problem, and in some districts improvement has been so slight that embarrassed dealers and contractors are very emphatic in their declarations that all of the betterment displayed thus far has been on paper. The birth of these economic forces which tend to diminish demand is significant, and the architect should diligently watch their progress. Materials prices will probably register more gains from time to time, for the factors working on the side of demand are more potent and mature than their adversaries—but the latter have a great deal of promise.

Wages during the past month or two have made more substantial gains than materials prices. Although no standard index of wages within the industry exists, it is reliably reported that in some districts they have approached levels prevailing in 1920. These increased remunerations have a dual effect upon the trade. They increase the cost of building, and they lessen the efficiency of the workman. They have come about as the direct result of intense activity within the industry, the usual restrictions placed upon the supply of organised labour, and the operation of the present immigration laws. Rising costs, to which advancing wages are a prime contributor, and the public's resistance to these higher expenses are manœuvring the contractor into a tight place where he will not be able to accede with profit to the unions' demands. The situation so far has been kept peaceful and trouble averted by the employer coming to the employees'

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* A statement prepared for "The American Architect" by the American Chamber of Economics, Incorporated.

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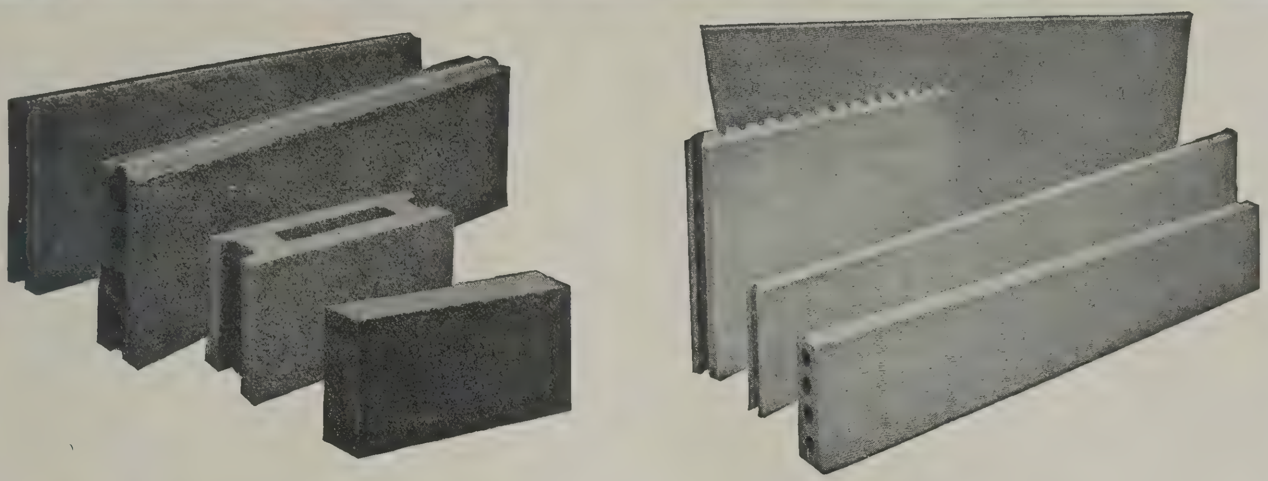

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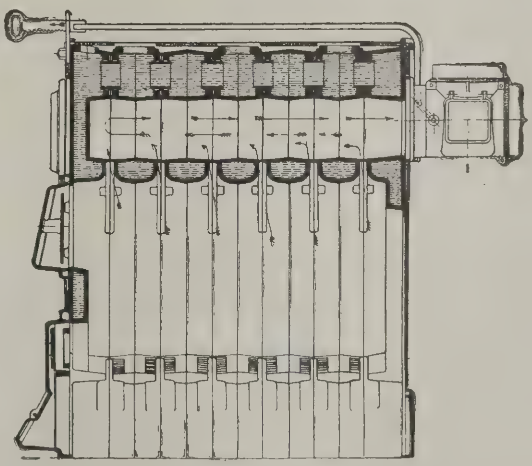

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terms. That solution cannot always be utilised. When the slow-down comes it will all depend upon labour's attitude. The underlying trend of commodity prices is still apparently upward, and an advancing standard and cost of living never have made the unions sympathetic to the struggles of the employer.

In the meantime strikes will continue to be threatened and carried out. Competitive bidding for labour makes it all the more certain that the unions' demands for wage increases from 10 to 20 per cent. will be passed upon favourably. More requests of this compelling character are in prospect as commodity prices rise. The architect, who is concerned with his industry's future, should study the labour situation unremittingly. It gives out indications of growing worse before it is better.

The third attribute of ascending costs is the market for mortgage money. The rate of mortgage money has not actually risen. It still commands a spread, generally of 6 to 6½ per cent. The significant developments have been the increasing scarcity of money for building and construction purposes even at this figure, and the increasingly critical investigation that bankers are making of their risks before granting a loan. This growing scrutiny, with which the banker regards his risk, and his more fervent zeal to obtain an adequate margin of safety for his loan, is a repetition of the suggestion that the building boom is considered in banking circles as passing into the more speculative stages of its existence. Mortgage bankers, building and loan associations and the co-operative bankers of New England describe the character of the demand in rather forceful superlatives. For the immediate present most of these bankers feel that prevailing rates will obtain, although they hurry to add that the supply of this long-time money is growing scarce, and that their attitude towards the thoughtless and hasty propulsion of the building and construction boom is one of increasing disapprobation.

The underlying trend of the general money market is mildly upward, and if the commercial demand for financial accommodation is augmented, mortgage money will command a greater premium. That is due to the fact that commercial demands will absorb more and more of the general supply of funds, that investors will become more wary of tieing up funds for long terms at 6 per cent., and the more prudent and careful will raise the question as to whether the construction and real estate market offers the safest employment for their money. Architects interested in the trend of mortgage money may gauge the future by observing the trend of the commercial paper rate and the rediscount rate. Mortgage money rates will move in the direction of the rates of the general market.

Now, arranged against these rising costs are the forces of demand in the most eloquent demonstration of the strength and power that the industry has yet witnessed. March business in the building and construction industry was unparalleled. April contracts awarded will doubtless be similarly exceptional, for contemplated work reported during the first quarter of 1923 was about 155 per cent. ahead of that a year ago. Such a large potential demand and the probable increase in building expense further indicate that the year's peak will likely come relatively early, and that it will probably attain an exceptional altitude. If building costs continue to gain at their present rate of acceleration, the decline in contracts awarded from this early summer peak promises to be marked. If costs move upward more leisurely, then the industry may look for several months of record business.

Scheme for the Improvement of Industrial Designs.

The Royal Society of Arts has, among its other activities, fostered for many years past the study of design among the students of schools of art by giving prizes and medals. It is felt advisable that the efforts which have been made by the Society in this direction should now be very largely increased, and the Council, after full consideration of the question, and after consultation with representatives of various public bodies and institutions, have decided to inaugurate a scheme which will, it is hoped, be of the greatest service to the manufacturer, to the designer, and to the public generally. Although numerous organisations exist for the exhibition of finished products, there is no public institution which deals with the actual design, which, after all, is the basis upon which the finished product is built. The manufacturer is anxious to find designers of exceptional ability, and under present conditions does not know in which direction to find them. The Society feels that there is a great opportunity for the encouragement of ability in industrial design. Not only will the designer have the opportunity of proving his skill, with the great advantage of publicity and encouragement; but the manufacturer will have access to a far wider field, and the result will be most beneficial to both. The effect must be good in every way, and must inevitably tend to a general improvement and elevation of artistic industrial design in this country.

Leading authorities in all the various branches of industrial design and production have been invited to join the Committees which are dealing with the matter, and the approval with which the scheme has been received is shown by the list of names which are to be found on these committees. Each committee will deal with its own particular subject, will settle the details of the competition, and appoint the judges.

The Society will hold an annual competition of industrial designs—one class open only to students of schools of art, the other open to all. The subjects so far arranged are divided into four Sections—Architectural Decoration, Textiles, Furniture, Book Production, and it is hoped at any early date to appoint committees to deal with the remaining subjects into which artistic design may be said to enter. After each competition it is proposed to hold exhibitions of selected designs in suitable centres. The Society's diploma will be conferred on any candidate of outstanding ability. It is hoped that this will soon come to be recognised as a hall-mark of excellence, and anyone possessing it will be known to employers as a designer not only of the highest artistic power, but also with a practical knowledge of the materials and processes of his trade.

In order to add to the attractiveness and utility of the competition, the Society is anxious to raise a fund to establish money prizes and, if possible, one or more travelling scholarships. The young designer of promise is often prevented by lack of means and leisure from acquiring that education which is the basis of the best original work. It is felt that the establishment of such scholarships would be of immense value in creating a class of select designers, and would eventually tend to raise the general level of design throughout the country. This result would certainly exert a healthy influence on our export trade, for there can be no doubt that wealthy buyers throughout the world will come to those markets where the best taste is to be found.

The Council of the Society, therefore, appeal with confidence to all who are not only interested in the artistic industries of the country but hope for the general improvement of British trade to assist them in promoting the scheme outlined above. Contributions to the Fund may be addressed to the Secretary, Royal Society of Arts, John Street, Adelphi, W.C.2.

The Architectural Decoration Committee is made up as follows:—Chairman, Sir Charles C. Allom; Mr. Murray Adams-Acton; Dr. G. F. Assinder, M.A., B.C.L., LL.D. (Messrs. Crofts & Assinder, Ltd.); Professor R. Anning Bell, R.A.; Sir Reginald Blomfield, R.A.; Mr. A. Barnard Cowtan, O.B.E.; Mr. Arthur J. Davis, F.R.I.B.A. (Messrs. Mewes & Davis); Mr. H. G. Dowling (Messrs. John Line & Sons, Ltd.); Mr. Geoffrey Fildes, A.R.I.B.A.; Sir Banister Fletcher, F.R.I.B.A.; Sir George Frampton, R.A.; Lieut.-Commander Thomas Free, R.N.R. (Rtd.), (Master of the Joiners' Company); Mr. F. G. Froggart; Mr. J. Starkie Gardner; Mr. Godfrey Giles (Messrs. Godfrey Giles & Co.); Mr. Stanley Hamp, F.R.I.B.A. (Messrs. Colcutt & Hamp); Mr. T. H. Lyon; Sir Bertram Mackennal, K.C.V.O., A.R.A.; Mr. J. A. Milne, C.B.E. (Henry Stone & Son, Ltd.); Professor Gerald Moira; Mr. Murray Reid (Messrs. Whytock & Reid); Professor A. E. Richardson, F.R.I.B.A.; Mr. C. A. Richter (Bath Cabinet Makers Co., Ltd.); Mr. Harold W. Sanderson (Messrs. A. Sanderson & Sons, Ltd.); Mr. Octavius Satchell; Mr. H. D. Searles-Wood, F.R.I.B.A.; Mr. L. A. Shruffrey (Messrs. Shruffrey & Co.); Mr. R. Silver; Mr. Fred Skull (Messrs. Walter Skull & Son, Ltd.); Mr. John Slater, F.R.I.B.A.; Mr. W. Stewart-Greene (Messrs. Greene & Abbott, Ltd.); Mr. James A. Tait (Messrs. Hampton & Sons, Ltd.); Mr. Carmichael Thomas; Mr. Frederick Tibbenham; Mr. Fabian G. Trollope (Messrs. Trollope & Colls, Ltd.); Mr. Harold Waring, C.B.E. (Messrs. Waring & Gillow, Ltd.); Sir Frank Warner, K.B.E.; Mr. H. Stanley Wharton (Messrs. Maple & Co., Ltd., 149 Tottenham Court Road, W.1).

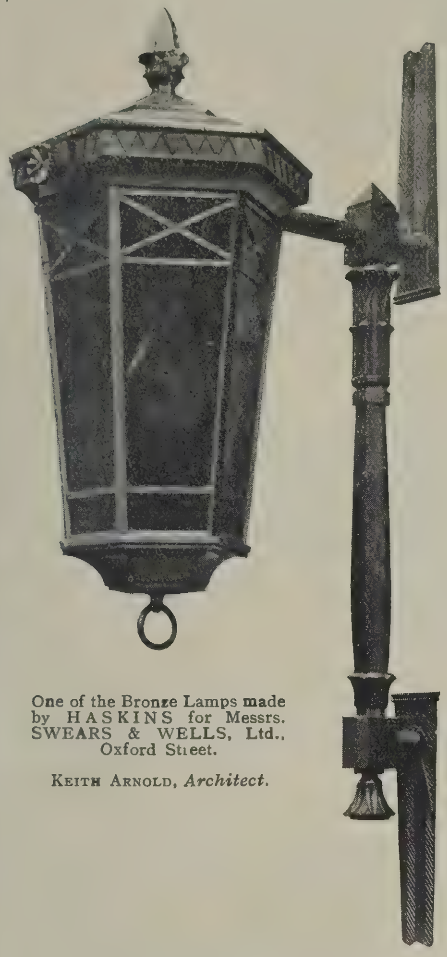
There are also committees for Textile Furniture and Book Production.

Competition News.

The Swansea Masonic Hall Committee have invited competitive designs (limited to Freemason architects having an office or practising in the provinces of South Wales and Monmouthshire) for new premises at St. Helen's Road, Swansea, at an approximate cost of £13,500, and have appointed Mr. Arthur Keen, F.R.I.B.A., as the Assessor.

The Scottish Board of Health in their annual report just issued state that "it is no exaggeration to say that the present actual shortage of houses in Scotland is at least 100,000."

The Warrington Wesleyan Circuit invite competitive plans for a church and graded school, to be erected in Ellesmere Street, Warrington, at a probable cost of between £5,000 and £6,000. Block plan of land and all necessary information may be obtained from Mr. F. Cox, 72 Mersey Street, Warrington. Plans and specifications to be sent to Rev. H. Kirby, 2 Palmyra Square, Warrington, by August 8.



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In the course of some incidental evidence given at Westminster Hall the other day by an architect and surveyor of old and accepted standing, it happened that he stated his charge to be "a guinea an hour." His lordship on the bench looked aghast; the bar, ever ready to follow such a lead, indulged in a subdued but hearty laugh; and the weary crowd of witnesses and jurymen in waiting, glad of any relaxation, chorussed the merriment. All this was in perfect good faith, and the only remark made by the judge was strictly to the point—namely the expression of a doubt whether the litigant who had employed so expensive an adviser could be held justified in expecting to saddle his opponent with the full expense.

We may perhaps suppose that his lordship was thinking at the moment of the apparently analogous case in which counsel is retained for the hearing of a suit at a fee of five and twenty or thirty guineas for the day (with a "consultation" tacked on at the cost of from three to five guineas more); when the taxing master is found to hold that the amount paid for this expensive advocate cannot be fully charged against the loser; in which circumstances there occurs an amusing controversy between the guileless attorney who has happened to win and the guileless attorney who has not—the one considering it to be most unreasonable that his client should lose upon an amount which he has actually paid, and anything less than which would have been contemptuously refused by that intelligent go-between the barrister's clerk, while the other is equally clear that such a sum is more than the defeated litigant ought to be compelled to pay for what is after all but the hiring of overwhelming strength wherewith to accomplish the destruction of an honest cause.

Our good friend the surveyor had no opportunity of vindicating the position he had assumed; it may in fact be acknowledged that in the further observations of counsel he was not a little roasted in the amusing character of the most expensive man of his class that had ever been heard of; and if the wit of the bar may be said to have flowed over upon him in some such speculation as whether he received his guineas all night as well as all day, this is only what would be expected by those who know anything of the logical ingenuity of gentlemen of the long robe.

Trade Notes.

The Art Metal Construction Company have this week opened new offices at Alexander House, 31 Kingsway, London, W.C.2 (Telephone: Gerrard 2337-2338). This change of address has been caused by a steadily increasing demand for art metal which necessitated larger premises.

The Phœnix Engineering Co., Ltd., of Chard, Somerset, England, will be exhibiting at Stand No. 106, Royal Agricultural Show, Newcastle-on-Tyne, their well known various combinations of high capacity (hand and power) pumps, for dealing with clean, sandy and muddy water, liquid manure, emptying cesspools; in fact, almost anything that will flow. The quantities dealt with vary from 600 to about 6,000 galls. per hour, and are of the "Floodgate" (which has no diaphragm), or if desired "The Phœnix Diaphragm" type. They are made for *lift* only, or for *lift* and *force*. This company is also one of the oldest manufacturers of machines for dealing with tar, tar compounds, bitumen, mastic or rock asphalt, etc., for road work, paths, etc. So many combinations are manufactured that we advise those interested to write for the firm's "red and grey catalogues," which are sent post free, together with any special information that may be desired. Sizes of the various machines vary from 10 galls. to 10 tons capacity. They are also manufacturers of tumbler carts, water carts, road sweepers and scrapers, road gritting machines, and general appliances for road and estate work.

Chas. P. Kinnell & Co., Ltd., 65 and 65a Southwark Street, S.E., inform us that their telephone number has been changed from Hop 372 to Hop 362 (three lines).

The Design and Industries Association is exhibiting at 6, Queen Square, W.C., from June 30 to July 21, 2 to 6 p.m. (Saturdays included), a number of French wood-engravings and wood-cuts. These methods of expression have unfortunately fallen into disuse in this country for practical purposes, but they are employed to an increasing extent by French publishers for illustrating inexpensive books. The examples shown at 6, Queen Square show great vigour and complete mastery of technique. At present photographs and black and white drawings mechanically reproduced hold the field for illustration in this country, but there are signs of a revival of interest in wood-cuts. Great Britain possesses some very able wood-cutters whose work should not only be better known but more largely used in book production.

Victory Scholarship Competition, 1923.

The number of entries received this year for the "Victory Scholarship" amounted to 33 altogether. Thirty designs were received from competitors sitting at Aberdeen, Bristol, Glasgow, Leeds, Liverpool, and London, on Saturday, June 9, from 10 a.m. to 10 p.m. The programme, which was handed to each competitor upon arrival, consisted of a monumental fountain. The Jury of Assessors, after long and careful deliberation, submitted the following report:—

"We, the undersigned, being the Jury of Assessors in the Society of Architects' Victory Scholarship Competition, have to-day selected ten drawings, bearing the following index numbers for the Final Competition: 121, 124, 125, 127, 130, 135, 137, 138, 146, and 147.

"Signed: H. V. Lanchester, L. Sylvester Sullivan, L. H. Bucknell, G. Gordon Hake, Howard Robertson."

The authors of these designs were then declared to be as follows:—

F. Scarlett, of London, 121; B. M. Flegg, of London, 124; D. F. Martin-Smith, of London, 125; C. S. White, of London, 127; J. C. Shepherd, of London, 130; R. H. Brentnall, of Bristol, 135; A. J. Saise, of Bristol, 137; J. A. Coia, of Glasgow, 138; J. Addison, of Leeds, 146; S. Bradley, of Leeds, 147.

The Final Competition will be held on Saturday, July 14, the programme for which will not be disclosed until that date.

The whole of the esquisses are on exhibition at 28 Bedford Square, W.C., from 10 a.m. to 5 p.m. daily (Saturdays, 12 o'clock), until Friday, July 13.

General.

Messrs. Martin and Martin and W. H. Ward are the architects for extensions at the Children's Block of the Dudley Road Hospital, Birmingham.

Annfield Plain Urban District Council have approved of plans submitted by South Moor Colliery Company for the erection of 48 houses at New Kyo.

The Manchester Municipal College of Technology invite applications by July 4 for an assistant lectureship in Building Construction at a salary of £350 per annum.

Mr. John Cubbon, F.R.I.B.A. is the architect for a doctor's residence about to be erected at the Tuberculosis Sanatorium, Nab Tob, Marple, for Salford Borough Council.

Mr. W. J. Hale, F.R.I.B.A., has prepared plans for a Wesleyan Hall which it is proposed to erect at Attercliffe at a cost of £30,000, towards which about £22,000 has already been promised.

The R.I.B.A. have asked us to give notice that the Housing Tribunal appointed by them to deal with cases for fees in connection with Abandoned Housing Schemes cannot consider any further cases submitted after July 14.

Mr. Neville Chamberlain, in a written reply, says he is not aware of recent evidence as to the success or failure of water divination by "dowsers," but local authorities can, if they choose, incur reasonable expenditure on their employment.

The Bristol Housing Committee have received tenders for the erection of 50 houses at Fishponds, 52 at Knowle, and 58 (terraced) at Bedminster. Six builders will commence the work forthwith. The cost of the parlour house does not in any case exceed £400, whilst that of the non-parlour type is more often under than over £350.

The proposed scheme for the erection of a joint hospital at Forresterhill, Aberdeen, by concentrating the principal hospitals in the city and the Aberdeen University School of Medical Science on one common site came before Aberdeen Town Council at a meeting last week, when a deputation from the Joint Hospital Accommodation Committee appealed for the Council's co-operation.

Major H. C. Corlette, O.B.E., F.R.I.B.A., has been appointed architect for suggested churches at Ashby and Crosby, and he has already prepared plans, which are described by the Bishop of Lincoln as "simple, convenient, and dignified." The estimated cost of each building is £12,000. It is generally considered that it is not possible to build a church with any character for less than £20 a sitting. The architect has stated that there will be a great saving of expense if it is possible to build both churches simultaneously.

The Thoresby Society has decided to issue to its members next year a descriptive account of Bolton Priory by Mr. A. Hamilton Thompson, M.A., F.S.A. The work will include a coloured plan of the Priory, the expense of which will be about £40, and also about fifty reproductions of photographs and scale drawings. The total cost will be at least £300, towards which the society will contribute £150, leaving the balance to be raised by a special fund. It is intended to make the publication a standard work on the architecture and history of the Priory, and a book of reference on all matters connected with the Augustinian Canons.

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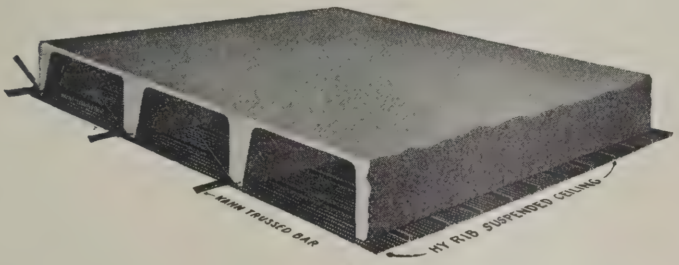

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FRIDAY, JANUARY 5, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

*** *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ABERDEEN.—January 15.—For mason, joiner, plumber, slater, plasterer and painter work for the erection of four houses on Scotstoun Farm, Laurencekirk, and 10 houses on Whitemyres, for the Board of Agriculture for Scotland. The Board's Office, Regent Quay, Aberdeen.

ARDROSSAN.—January 11.—For the following works in erection of filter house at Millglen filters, Dalry Road, for the Town Council, viz. : Digger, brick and concrete works ; carpenter and joiner work ; plumber work ; plaster work ; painter work. Deposit £1 1s. Mr. J. C. Duncan, water manager, Burgh Chambers, Ardrossan.

ARKENGARTHDALE.—January 6.—For additions to war memorial and additions and alterations to the schoolhouse. Send names, by January 6, to Messrs. J. Wetherell & Son, architects and surveyors, 13 Queen's Road, Richmond, Yorks.

BARGOED.—January 15.—For conversion of Army hut into ex-Servicemen's Club at Bargoed. Messrs. Wm. Harris & Son, architects and surveyors, Bargoed.

BARROW-IN-FURNESS.—January 15.—For the extension of the Abbey sub-station, Leith Flat Brow, and a new convenience attached thereto, for the Town Council. The Borough Engineer's Office, Town Hall, Barrow-in-Furness.

BATLEY.—For the various works in extension of the Technical School. Messrs. Walter Hanstock & Son, architects, Batley.

BISHOP'S STORTFORD.—January 10.—For the erection of an extension to the High School for Girls at Bishop's Stortford, for the Hertfordshire and Essex County Councils. Send application and £2 2s. deposit by January 10 to Mr. J. W. Fisher, architect, of Messrs. Talbot Brown & Fisher, architects, Burystead Place, Wellingborough.

CHELMSFORD.—For the erection of (1) cottage at Elmstead, near Colchester ; (2) single cottages at Thorpe-le-Soken, near Clacton-on-Sea, for the Essex County Council Small Holdings and Allotments Committee. Mr. J. Stuart, F.R.I.B.A., county architect, Old Court, Springfield, Chelmsford.

COLCHESTER.—January 8.—For erection of 12 dressing boxes at the public bathing place, for the Parks and Bathing Places Committee. Mr. H. Collins, A.M.I.C.E., borough engineer and surveyor, Town Hall, Colchester.

DARLINGTON.—January 10.—For erection of 25 houses on the Cockerton site, for the Town Council. The designs include pairs and blocks of three and four houses, and builders may tender for the whole or part of the blocks of the houses to be erected. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

ECCLES.—January 15.—For the various works in alterations and additions to the existing men's underground conveniences and a new underground convenience for ladies at the Market Place, Eccles, for the Health Committee. The Borough Engineer and Surveyor, Town Hall, Eccles.

FARTOWN.—January 12.—For the various works required in erection of additions and alterations to the cricket pavilion, Fartown, Yorks., for the H.C. and A.C. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

GLASGOW.—January 8.—For the following works required in connection with erection of pavilion for Nether Pollok Playing Field, Haggs Road, Pollokshaws, for the Glasgow Education Authority, viz. :—(1) Excavator, brick, steel and drainage works ; (2) carpenter, joiner, glazier and ironmongery works ; (3) slater work ; (4) plumber and heating works. Deposit £1 1s. The Education Offices (Property Department), 129 Bath Street, Glasgow.

HIPPERHOLME.—January 8.—For works required in erection of additions to Hipperholme and Lightcliffe Conservative Club. Send names, by January 8, to Messrs. C. F. Horsfall & Son, architects, Lord Street Chambers, Halifax.

HULL.—For erection of varnish works and store, Ropery Street, for Messrs. A. Sanderson & Co. Mr. F. R. Waller, architect, Kingston Chambers, Land-of-Green-Ginger, Hull.

ISLE OF MAN.—January 15.—For the erection of four blocks of workmen's dwellings in Ramsey, each block containing four houses, for the Town Commissioners. Messrs. G. Kay & Sons, architects, Douglas.

LEEDS.—January 6.—Names of contractors are requested for the re-tendering for reinforced concrete wall at Headingley Grounds for the Leeds C. F. & A. Co., Ltd. Send applications by January 6 to Mr. Wm. Broadbent, architect, 12 East Parade, Leeds.

LOANHEAD, ETC.—January 15.—For all building trades for the erection of ex-soldier colony houses at the following places, for the Board of Agriculture for Scotland, viz. :—Damhead Farm, near Loanhead, 32 houses ; Boghouse Farm, near Yoker, 7 ; Grassmylees Farm, Mauchline, 9 ; Whitemyres Farm, Aberdeen, 10 ; Scotstoun, Laurencekirk, 4. Deposit of £1 1s. for each contract. The Labour Exchange Offices at Clydebank, Ayr, or Kilmarnock ; and the Board's Office, Regent Quay, Aberdeen ; or the Chief Surveyor, Board of Agriculture for Scotland, York Buildings, Edinburgh.

LONDON.—January 17.—For construction of a concrete swimming pond and timber-framed buildings, for the Hammersmith Borough Council. Deposit, £2 2s. Borough Engineer and Surveyor, Town Hall, Hammersmith, W.6.

LONDON.—January 30.—For the erection of a school for 400 boys at Canterbury Road, Leyton, E.10, for the Leyton Urban District Council. Send application and £2 deposit, by January 6, to Mr. J. H. Jacques, L.R.I.B.A., 61 West Ham Lane, Stratford, E.15.

OLDHAM.—For building, etc., work in connection with underground conveniences at the junction of Union Street and King Street, for the Carrying and Cleansing Committee. The Borough Surveyor's Office, Town Hall, Oldham.

NEWCASTLE-ON-TYNE.—January 15.—For carrying out alterations to engine-shed at Tyne Dock, for the North Eastern Railway Co. Mr. S. Wilkinson, architect, Irving House, Westgate Road, Newcastle-on-Tyne.

PORT TALBOT.—January 15.—For the erection of public conveniences at Aberavon Beach and at Taibach, for the Town Council. The Borough Engineer, Municipal Buildings, Port Talbot.

RIPON.—For the taking down and removal of steel-framed concrete huts and reinstatement of the ground in camps Nos. 21, 22 and 23 at Ripon, Yorkshire. The Commanding Royal Engineer, R.E. Office, 14 Belle Grove Terrace, Newcastle-on-Tyne.

STOKE-ON-TRENT.—January 10.—For the execution of alterations and additions to the laundry at the London Road Institution, for the Guardians of Stoke and Wolstanton Union. Deposit £2 2s. Mr. A. R. Piercy, architect, Union Offices, Stoke-on-Trent.

TREMAIN, CARDIGAN.—January 20.—For the erection of a dwelling-house and outbuildings at Tremain. Mr. D. Davies, Brynhyfryd, Blaenanerch.

WALSALL.—January 15.—For the concrete, brick and timber work in connection with steel-framed building, for motor-'bus garage, Birchills, for the Tramways Committee. Mr. J. Taylor, M.I.C.E., borough engineer and surveyor, Council House, Walsall.

WALTHAMSTOW.—January 19.—For erection of a static sub-station (electricity) at The Broadway, Highams Park, for the Urban District Council. Mr. G. W. Holmes, A.M.I.C.E., Town Hall Annexe, Walthamstow.

WALTON-ON-THAMES.—January 10.—For the construction of the superstructure for the extension of the existing engine-house, boiler-house, elevated coal bunkers, and alterations to existing works, etc., at Walton-on-Thames, for the Metropolitan Water Board. Deposit £5. Mr. H. E. Stilgoe, M.I.C.E., chief engineer (Room 201), Metropolitan Water Board Offices, 173 Rosebery Avenue, E.C.

WEST HAM.—January 11.—For erection of sanitary convenience, Connaught Road, Silvertown, for the West Ham Town Council. Deposit £1. The Borough Engineer, Town Hall, West Ham, E.15.

WOLSINGHAM.—January 31.—For the pulling down of two adjoining cottages and rebuilding of the Grey Bull Hotel, Wolsingham. Deposit £2 2s. J. W. Cameron & Co., Ltd., 135 Newgate Street, Bishop Auckland.

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1918

September 27, Gretna.
October 11, Gretna. *Out of print.*
November 29, Dublin.
December 13, Eastriggs. *Out of print.*

1919.

January 17, Birmingham. *Out of print.*
February 21, Hull. *Out of print.*
March 14, Scottish Housing Competition.
April 11, Coventry and Shirehampton. *Out of print.*
May 2, Dormanstown. *Out of print.*
June 13, National Shipyards.
July 18, Bristol.
August 8, Swanpool, Lincoln.
September 12, Duchy of Cornwall Estate, Kennington.
October 10, Nottingham.
November 14, Nottingham.
December 12, American, etc.

1920.

January 30, Haverton Hill, near Middlesbrough.
February 13, "Ideal Homes" Exhibition.
March 19, Sherborne, Dorset, and Shrewsbury.
April 30, Dutch.
May 28, Swanpool, Lincoln.
June 18, Croydon.
July 23, Croydon.
August 20, Letchworth and Lanark.
September 17, Camberwell.
October 8, Scottish Housing Number.
November 12, City of London.
December 10, City of London.

1921.

January 14, London County Council.
February 4, Woodcote Public Utility Society, Ltd.

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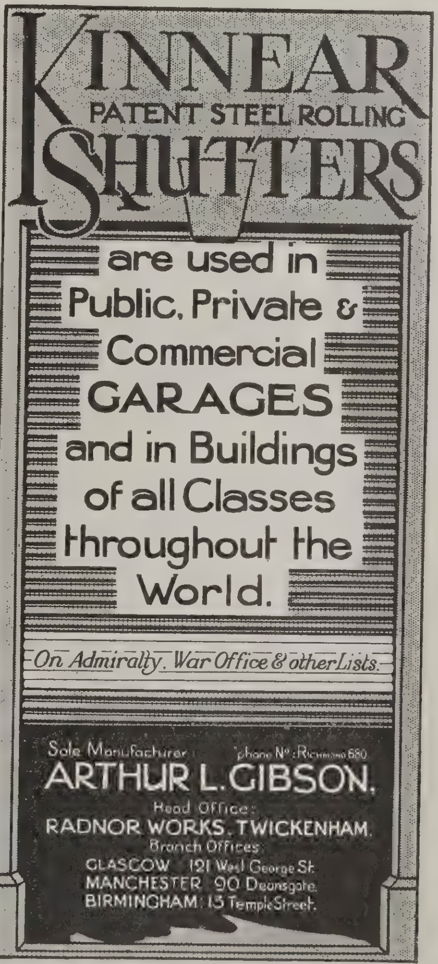

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FRIDAY, JANUARY 12, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than* 2 P.M. *on Wednesdays.*

CONTRACTS OPEN.

ALNWICK.—January 20.—For erection of 24 houses in one or more pairs, for the Rural District Council. Send applications by January 20 to Messrs. G. Reavell, F.R.I.B.A., and W. A. Tebbs, L.R.I.B.A., Lloyds Bank Chambers, Alnwick.

ASHTON-UNDER-LYNE.—January 17.—For erection and completion of 60 Class A houses of one type in pairs (being 30 houses for the Corporation and 30 Ministry of Health State-aided houses), on the Heys estate, off Mossley Road. Deposit £2 2s. Messrs. W. H. George & Son, architects, 7 Warrington Street, Ashton-under-Lyne.

BACUP.—January 29.—For erection of 42 houses on the Heath Hill estate (lump sum tenders), for the Corporation. Deposit £5 5s. Mr. W. H. Newton, A.M.I.C.E., borough engineer, Municipal Offices, Stubbylee Hall, Bacup.

BARNET.—January 24.—For erection of 5 pairs of houses at Watling Street, Elstree, and 12 pairs of houses at Furze Hill Road, Boreham Wood, for the Barnet Rural District Council. Deposit £2 2s. Mr. A. J. Wilshire, surveyor, Council Offices, Boreham Wood, Herts.

BEAMINSTER.—January 20.—For erection of infantry headquarters, for the Dorset Territorial Army Association. Deposit £2 2s. Mr. F. T. Maltby, A.M.I.C.E., M.S.A., architect and surveyor, Dorchester.

BIRMINGHAM.—January 24.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of a post office stores factory at Birmingham. Deposit £1 1s. H.M. Office of Works, Paradise Street, Birmingham, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

BRUTON.—January 23.—For erection of a sports pavilion and cottage on the playing field of the King's School. Deposit £2 2s. Mr. A. J. Pictor, F.R.I.B.A., architect, Bruton, Somerset, and 14, Queen's Square, Bath.

CANEWDON.—January 20.—For the erection of three pairs of bungalows in the parish of Canewdon, for the Rochford Rural District Council. Mr. A. C. Madge, Council's sanitary inspector, Rochford, Essex.

CHESTERFIELD.—For erection of 40 houses in blocks of 2 and 3, in St. Augustine's Road, for the Corporation. Messrs. W. H. Wagstaff & Sons, architects and surveyors, 57 Saltergate, Chesterfield.

DAVENTRY.—January 22.—For erection of 12 houses, in lots of 6 or for the whole number, and alternatively for the erection of 8 houses at Drayton, for the Corporation. Deposit £1 1s. Mr. J. B Williams, borough surveyor, Moot Hall, Daventry.

DURHAM.—January 23.—The Durham County Council (Education Department) invite separate tenders for the following: (1) Bewicke Main new school.—Erection of the above-named school to accommodate 160 scholars. Alternative tenders are invited for (*a*) permanent and (*b*) semi-permanent buildings. Contractors are requested, in applying for the bills of quantities, to state whether both bills of quantities are required. (2) Hunwick new school.—Erection of the school to accommodate 560 scholars, (*a*) general builders' work in preparation of site, drainage, substructure, water supply and sanitation, (*b*) superstructure of light construction. (3) Blackhall Mill Council School.—Tar-paving the playgrounds. (4) Castleside Council School.—Tar-paving the playgrounds. (5) Crook Council School.—Alterations and repairs. (6) Elisabethville Council School.—Builders' work in connection with (*a*) improvements to latrines and (*b*) construction of heating chamber and attendant builder's work in installation of heating apparatus. (7) Hamsterley Colliery Council School.—General repairs. (8) Ryhope Colliery Infants' Council School.—General repairs and minor improvements. (9) Seaham Harbour Council School.—Alterations and repairs. Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham.

EDINBURGH.—January 20.—For the following works: Mason and bricklayer, carpenter and joiner, plumber, plasterer, slater, glazier and painter, required in the reconstruction of Tenement No. 2, Tweeddale Court, 14 High Street, for the Corporation. The Director of Housing, City Chambers, 329 High Street.

EDMONTON.—January 27.—For erecting and finishing for use the superstructure of an additional block to the Nurses' Home, North Middlesex Hospital, Silver Street, for the Guardians of Edmonton Union. Send applications and £5 5s. deposit by January 27 to Mr. E. Ridley, clerk, 77 Bridport Road, N.18, or Mr. J. C. S. Mummery, A.R.I.B.A., architect, 34 Bloomsbury Square, W.C.1.

GLASGOW.—January 16.—For the following works required in connection with erection of 352 houses at Newbank and Belvidere, for the Corporation, viz.: (1) Excavator, brick and mason work; (2) carpenter, joiner and ironmongery work; (3) slater and roughcast work; (4) plumber and gasfitter work; (5) plaster work; and (6) glazier work. Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

GUILDFORD.—January 26.—For erection of 50 houses on their Guildford Park housing estate, for the Corporation. Contractors are invited to tender for the erection of either 4 pairs of houses, 9 pairs of houses, 12 pairs of houses, or the whole number, namely, 25 pairs. Deposit £2 2s. The Borough Surveyor, Tuns Gate, Guildford.

HALIFAX.—January 22.—The Waterworks Committee of the Halifax Corporation invite tenders for the following trades:—Masons, joiners, plasterers and slaters, plumbers, concrete reinforced floors and roofs; also for the various alterations and additions to the Park Road baths. Deposit £2 2s. Mr. A. C. Tipple, borough engineer, Crossley Street, Halifax.

HALIFAX.—January 24.—For excavator, mason and bricklayer; carpenter and joiner; slater and plasterer; plumber and glazier; painter and decorator; and electrician's works, or for all trades in erection of 54 houses at Stoney Bridge Lane, Boothtown, for the Housing Committee. Deposit £2 2s. Mr. A. C. Tipple, borough engineer, Crossley Street, Halifax.

HITCHIN.—January 26.—For the erection of a brick engine-house with machinery, and two reinforced concrete water-towers, one of 30,000 gallons and the other of 15,000 gallons capacity, for the Hitchin Rural District Council. Deposit £2 2s. Mr. W. Phillips, consulting engineer, Gasworks, Luton; or Mr. A. E. Passingham, clerk, Hitchin Rural District Council Offices, Hitchin.

LEEDS.—January 25.—For all combined trades in connection with the erection in brick or concrete of 50 houses on the Cross-gates estate, and 50 houses on the Middleton estate, for the Improvements Committee. Deposit £1 1s. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds.

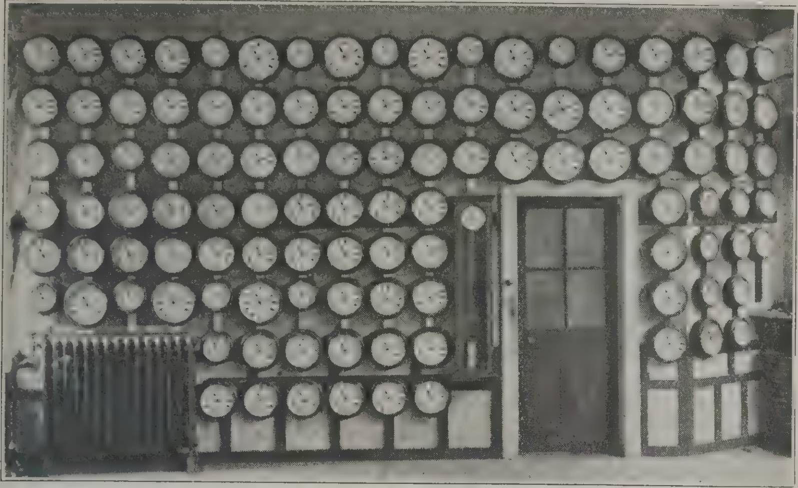
LIVERPOOL.—January 30.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of the Bank Telephone Exchange, Liverpool. Deposit £1 1s. H.M. Office of Works, James Street, Liverpool, or The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LONDON.—January 19.—The Commissioners of His Majesty's Works, &c., invite tenders for rebuilding front, &c., of the postmen's office, South Norwood, London, S.E. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

MANCHESTER.—January 24.—For erection of houses on the following estates, for the Housing Committee: Catterick Hall estate, Fog Lane, Didsbury, from 4 houses up to 16 houses; Clayton estate, North Road, Clayton, from 4 houses up to 120 houses; Newton Heath estate, Briscoe Lane, Newton Heath, from 4 houses up to 20 houses; Blackley estate, Walton Road, Victoria Avenue, Blackley, from 4 houses up to 180 houses. Such number to be clearly stated when tendering. Deposit £1 1s. The Housing Director, Town Hall, Manchester.

NEWCASTLE-UNDER-LYME.—January 20.—For building an operating room at St. John's Hospital, Keele Road, for the Guardians. Deposit £1. Mr. G. Hollins, A.R.I.B.A., architect, Market Place, Newcastle, Staffs.

SWINDON.—January 23.—For erection of an electrical transformer sub-station in Linden Avenue, at their Hurst housing estate, for the Corporation. The Borough Surveyor, 34 Regent Circus, Swindon.



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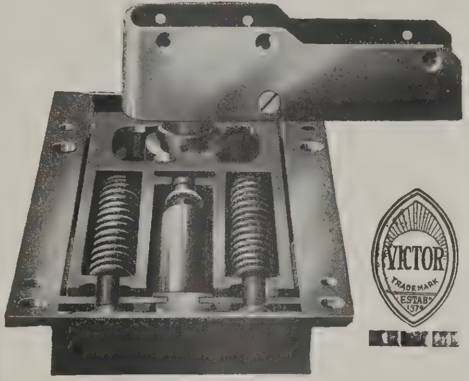

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Electric Lifts.

In a paper read on the 9th inst. before the National Association of Supervising Electricians, Mr. H. Marryat, M.I.E.E., F.E.C.A., M.I.Mech.E., had many things to say of direct importance to the architect. The lecture was supplementary to one read by Mr. Marryat seven years ago, in which he covered most of the ground essential to a general knowledge of electric lifts as understood in this country. The report we give below is an abstract of those portions of last Tuesday's address which are of most interest to our readers :—

Further, development of the electric lift upon American lines is, said the author, impracticable in this country, and will be so long as the existing limitations to the size and height of buildings are maintained. Lift makers, one and all, belong to the minority which desires to see the abolition of restrictions upon the height of buildings.

In America the lift has become so essential a part of the citizens' daily life that the civil authorities and fire offices have been obliged to impose restrictions and bye-laws which, whilst protecting the interests of the community, are nevertheless a deterrent to the progress of invention and design.

The freedom from restrictions which Great Britain enjoys allows of departure from American practice, and there are those who feel that the time has now come when we should go ahead in developing a purely British lift, one in which high speed can be attained even with short travel, with rapid and perfectly smooth acceleration under all conditions of load, equally rapid and smooth stopping, accurate floor levelling, and the general comfort and perfection of detail so dear to the heart of the true Britisher. Such a lift may have to give points with regard to first cost, but these will be comfortably regained in the reduction of maintenance charges and in general satisfaction.

The four principal arrangements of lift gear as employed in this country might be thus described :—

1. The sheave or traction drive with the gear situated directly over the lift well (this is the simplest arrangement of all, the lifting rope simply passing from the car sling over the traction sheave at the top of the well and down to the counterweight).

2. The same arrangement, but with the lifting engine and traction sheave situated at the foot of the well or on some intermediate floor.

3. The drum drive in which the lifting rope is anchored to a spirally grooved drum situated directly over the lift well.

4. The same arrangement with the lifting engine and drum at the foot of the well.

With regard to the choice between drum and traction drive, this is a question which has now nearly answered itself by the practical survival of the traction sheave. When electric lifts were first introduced into this country in the early nineties, the drum machine was used; the lecturer's firm (Messrs. Marryat & Scott, Ltd.) took exception to the arrangement as being dangerous, and pinned its faith to the traction sheave. For many years they were told that the drum was the safer arrangement, and there were those who insisted upon installing that class of machine. A contest of opinions followed for a long period, and it is only lately, comparatively, that the traction sheave method of drive has completely come into its own.

The best place for the lifting engine is at the top of the well, immediately over its work. Here the maximum of efficiency is attained and the number of parts to be maintained is reduced to a minimum. In this position the length of rope is only one-third that used for a similar lift if the gear is fixed at the foot of the well. As rope renewals form an important part of the upkeep cost of a lift, this alone is a matter well worthy of consideration. Quite apart from the length of the ropes being reduced by two-thirds, the life of the rope is very much lengthened because with the traction sheave at the top of the well the rope always bends in the same direction, whereas with the sheave fitted elsewhere a backwards and forwards bend is introduced which greatly shortens the life of the rope.

There is yet another argument which points to the best position for the engine being at the top of the well—*i.e.*, that if the engine is removed from this position to any other part of the building, instead of removing weight from the top girders as would perhaps at first glance appear, the strain upon those girders is actually in almost every instance very substantially increased.

One may well ask then why it is, if the advantages are so many in favour of the engine being fixed at the top, that we so often find it fixed below. The answer is in some cases because of the fear of noise and vibration annoying the tenants on the upper floors. The other reason is that it so often happens that architects omit to make any proper provision on the building plan for the necessary head room for the car over-travel and for the motor room above. Indeed, although it is now usual in the plan for a new building to make some provision for an electric lift, yet this provision is very seldom thought out fully in all its detailed relationship to the requirements of the building and constructional considerations.

In the design of a building it is usual for the architect to give the question of a staircase—its dimensions, position and construction—primary consideration, and he takes care to see that it is designed in due proportion to the requirements of the building. The same consideration should surely hold good with regard to the electric lift; indeed, inasmuch as modern buildings are usually of greater dimensions than those of past generations, and are intended to house a greater number of people on the upper floors, the consideration of a lift should occupy an even more important space in the design of the building than did the staircase previously. In fact, nothing of the sort happens until the lift makers come upon the scene, usually when the building is well advanced and it is too late to make any substantial alteration to the general plan. The lift maker is constrained to adapt his machinery to the special layout of the building, and so is unable to give of his best either in delivery or first cost. It will often happen that he is unable to arrange the machine so as to give the best rope drive. The result of this will be a further increase in first cost and a very big increase in the continuing maintenance cost. If, again, as too often happens, sufficient overtravel cannot be obtained, owing to the existence of important footings and sometimes drains, below the lift shaft, then the question of the speed of the lift may be affected, so further reducing the efficiency of the machine after installation. The size and shape of the car is usually fixed by the architect, frequently without regard to the essential feature of a wide opening for a busy lift in order that it may be quickly filled and emptied. Again, it does sometimes happen, although not so often now as formerly, that the lifts are placed in a position altogether subservient to the general plan, with the result that they are not properly lit, time is lost in reaching and leaving them, whilst a large and spacious staircase stands practically unused in a more important part of the building.

But possibly the greatest of the architects' sins of omission, and in this respect lift makers are themselves equally at fault, is the lack of any scientific basis for calculation of the capacity of the necessary lift equipment required for a particular building. The problem is a difficult one, and one which it is quite impossible for the architect to solve alone and without the assistance of a lift engineer of experience. The best basis is the rentable floor space of the building above the ground floor. The use to which each floor of the building is to be put must then be taken into account. This information, together with a plan showing the positions of the main entrances and corridors, and with tables of statistical results taken from a number of similar buildings, will enable the engineer and the architect together to decide what will be a suitable and efficient lift equipment for the building in question.

In compiling these statistics, the lecturer's firm have found it quite useless to make any calculation based upon the number of passengers using existing lifts, because in any building where there are not sufficient lifts or where the lifts are too slow a great number of the inhabitants will pass from floor to floor by the stairs, and although this may at first sight appear to be an economy on behalf of the owners of the building, it is not really so. Valuable time is lost and energy dissipated by stair work, and consequently the value of the premises is greater where a really efficient lift service operates.

It is essential to the proper development of electric lift service in this country for the architect to call into consultation the lift engineer—either the lift maker or a consultant—before the completion of the building plan, and, in fact, in the very earliest stages of any proposed building scheme of importance.

The author then proceeded to discuss engineering details. The choice between electric and hydraulic lifts had, he said, settled itself by the simple means of survival of the fittest. The hydraulic lift is now never installed in any place where electricity is available, except for certain special purposes.

In deciding upon the speed of a lift motor the designer is faced with the necessity of compromise which forces itself on the lift engineer at almost every turn. A slow speed motor with heavy flywheel effect in the rotating part undoubtedly smooths both the acceleration at starting and the retardation at stopping, and so increases the comfort of the passengers. On the other hand, as the cost of energy consumption in an electric lift is in proportion to the number of starts and stops, on any busy lift serving a number of floors, it is important to reduce the inertia of the moving part of the motor as much as possible. Motor speeds of from 800 to 1,200 r.p.m. are now generally accepted as being the most satisfactory for passenger lift service in London, whilst speeds in some cases up to 1,800 r.p.m. are employed with a measure of success.

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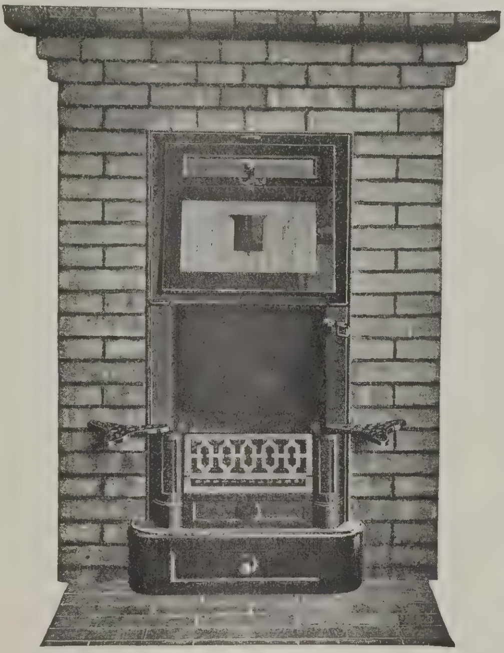

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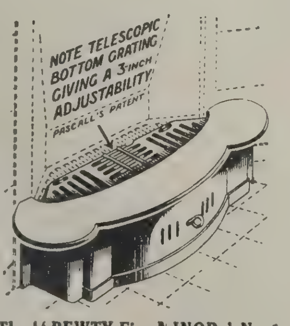

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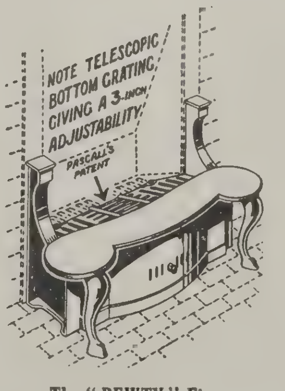

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The h.p. of the motor required may be calculated by multiplying the out of balance load in lbs. by the speed in feet per minute and dividing by 33,000 and the efficiency. This efficiency will vary from 30 to 60 per cent., and in the majority of the passenger and goods lifts in London may be estimated round about 40 per cent.

There have been no striking developments in the method of control of electric lifts during the last seven years; but great improvement has been effected in the detail of design and manufacture. There is also an increasing appreciation of the limitations of the push-button system.

By the employment of an automatic push-button electric lift the services of an operator are dispensed with. Against this very considerable economy must be set the increased first cost and the necessary introduction of a large number of safety devices, which are unneeded where an operator has control of the lift and is alone able to open the gates. Lifts are now increasingly installed for intensive service—*i.e.*, service in which they are called upon to carry large numbers of passengers from floor to floor continuously throughout the greater part of the day. In such cases a lift under the control of an operator will readily be able to handle three or four times the number of passengers which is possible with the push-button system. In places where crowds use the lifts at certain hours of the day and only a few passengers travel during the other hours, a combined system is sometimes employed. During the busy hours an operator controls the lift by means of a switch in the car, whilst the push-buttons on the floors are so connected as to operate an enunciator in the car to advise the operator where he is wanted. At other times the car switch and enunciator system are cut out of service, and the push-buttons connected up to the controller so that the lift operates as an automatic push-button lift.

It is in the details of construction ensuring reliability that lift progress has principally been made of late years, and we now handle controllers which may be relied upon to make 100,000 operations without attention.

In the construction of modern lifts smoothness of running is second only to smoothness of acceleration and deceleration.

Views of Birmingham.

It is a dispiriting experience to look through an illustrated guide to Birmingham. The choice of illustrations is usually wrong, and the wrong things are not shown in the right way. Even lifeless buildings—and there are people who think we have no others—can sometimes be attractive from special points of view. A little more thought for the precise atmospheric conditions; patience to secure the only moment in weeks which will give the best results; these, and the right point of view, will sometimes make even commonplace buildings look tolerable.

In Colmore Row (our most stately street), if we stand on the corner diagonally opposite the Union Club, and look towards the Town Hall, there is a mass of building on the right, which with a slight haze, and seen in sharp perspective, might have inspired Piranesi. This effect is chiefly due to the bold projection of the Council House entrance, the equally bold central pediment above, and the curve of the dome finishing behind the buildings in the foreground before exposing its disappointing smallness. Any attempt to realise the fulfilment of this distant promise by a closer inspection of the Council House will be fruitless. The detail is poor, the dome is inadequate, and around the corner is a clock tower which effectually puts an end to enthusiasm.

The Council House was built in 1874, and the "Extension" in 1914. The last named is cleverly planned and elaborately fitted up internally, but the quality of its external design has been left far behind on the rising curve of public taste and professional ability.

These two buildings are joined by a bridge, the design of which appears to have inspired that of the Post Office. Neither of these bridges is satisfactory, they pretend to a structure which they do not really possess, and their deficiencies in design could easily be demonstrated here if an article of this character called for such comment, which fortunately it does not. A protest, however, may not be out of place, for who knows but that a third such bridge may be on the way.

While we are in touch with the Post Office let us glance at the rear elevation from Navigation Street, and especially at the display of lavatory equipment on the Extension. Here is a building of very inferior design thrust upon us by a great Government department without power of appeal. Is it too much to hope that when the Government next builds in Birmingham we shall have power to exercise some control over the appearance of its work; at present we have none.

The Town Hall is a fine building externally, and only less so internally because unable to change with the times. It suited the conditions it was built to serve, and will always carry its civic importance with dignity. Unfortunately this cannot be said of the Council House and its extension; the Post Office and its extension; Chamberlain Square, and the statuary in Victoria Square, all of which should be relegated in our local Guides to a single page, with just enough illustration to help strangers to find the Art Gallery or to get their letters. This page might perhaps come late in Guide books—anything to avoid the chill of too early an introduction to the Council House and the Royal statues.

The most agreeable street in the town is Waterloo Street, which from Christ Church steps to the Cathedral Close is lined with buildings so well mannered that it is an architectural rest-cure to pass that way. Also Bennett's Hill, from New Street upwards, has few mistakes and some really fine façades. The Sun Assurance Building for one, perhaps our most scholarly example of the "Neo-Grec," with a good quite treatment of signs and a nicely weathered stone face. Nearly opposite to this is No. 21, a creditable adaptation of details from the Choragic Monument of Lysicrates; and higher up on the left is No. 5, one of a pleasant and unpretentious row, distinguished in a quiet way by a well-modelled bust at the first floor level.

The charm of Bennett's Hill is chiefly due to its painted façades, and to a change of direction at Waterloo Street which displays a number of these façades in each direction; there is another change in alignment at Colmore Row, made by Newhall Street, by virtue of which the Union Club—our only attempt at a metropolitan standard in Club architecture—almost succeeds in closing the street picture when looking from the Royal Insurance Offices. Such bends and such façades are usually pleasant.

The general character of Bennett's Hill and Waterloo Street is late Georgian, and there are still several buildings of this period about the adjoining four acres of open space. The Blue Coat School in fact goes back to 1724, and the Cathedral was consecrated as early as 1715. On the whole we may be proud of this square, and especially of the least restored part of the Cathedral, the delightful tower.

Some of the really important features of Birmingham are in the suburbs. Aston Hall is a building with a considerable reputation, and some day, when more can be spent upon its upkeep, when formal gardens can be substituted for some of the present hurdle and bush effects—and if we are careful in getting there to avoid the desolation of Aston, by making a detour via Hockley Hill, Hunters Road and Trinity Road—we shall be able to take visitors to the Hall without lessening its reputation or our own.

A short tour through Edgbaston is usually a revelation to visitors from other industrial centres; they are amazed at such conditions so near to the heart of our city, and we owe a great deal to Lord Calthorpe for the beautiful and open character of this lung to the town. It is an admirable example of estate development planned at a time when such things were little thought of.

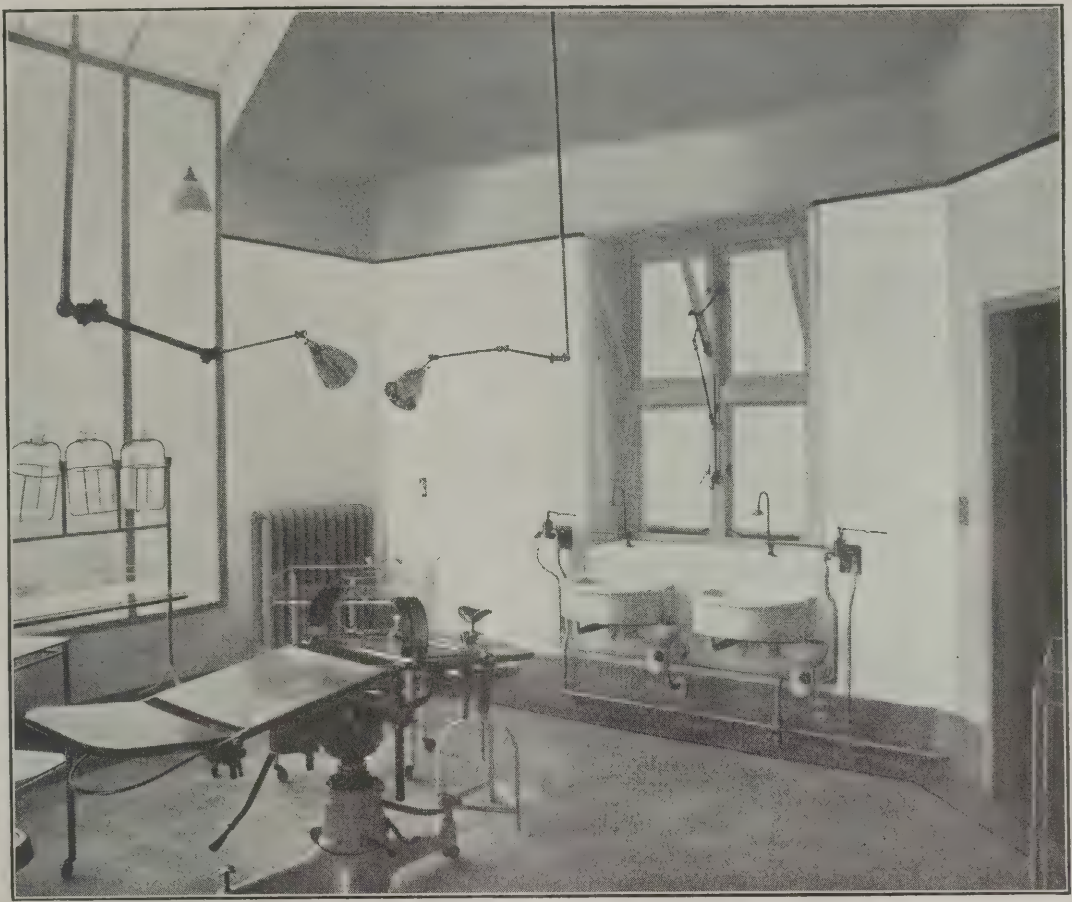
In the nearer suburbs, but chiefly in Edgbaston, there are many Georgian houses of all sizes and of good design. These will be found in Islington Row, Calthorpe Road, Hagley Road, Bristol Road, and the roads adjoining; they are worthy of illustration and might figure in views of the Edgbaston Estate.

Then Bournville is a landmark in the history of housing reform and suburban development; a sort of Mecca for sociologists the world over; indeed it is not too much to say that for certain visitors Bournville is probably of more importance than Birmingham itself.

But the greatest mistake of our Guide books is that they do not stress the things in which we excel or are unique: The Pre-Raphaelite work in the Art Gallery, the Burne-Jones glass in the Cathedral, the work of the Birmingham School in Painting, Book illustration, and Jewellery; the Shakespeare library; the Watt's collection. Illustrations of some examples from each of these, and a simple but scholarly description of the whole, would strike a really distinguished note. These are the treasures peculiar to Birmingham, and we have not made enough of them.

We may add to this list—among other things—those portions of arterial and ring roads now completed; these are good evidence of a progressive spirit and of a greater Birmingham; the work of the Repertory Theatre is the work of Birmingham men, and work to be proud of. Let the stranger be told and shown these things attractively, without them he cannot properly grasp what Birmingham means. Our Guide books are out of date.

[This article was published in the *Birmingham Gazette* and we give it as an example of the increased interest taken by the general press in architectural matters.—ED.]



Operating Theatre,
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Architect—WALTER ROSSER, Esq., M.S.A.

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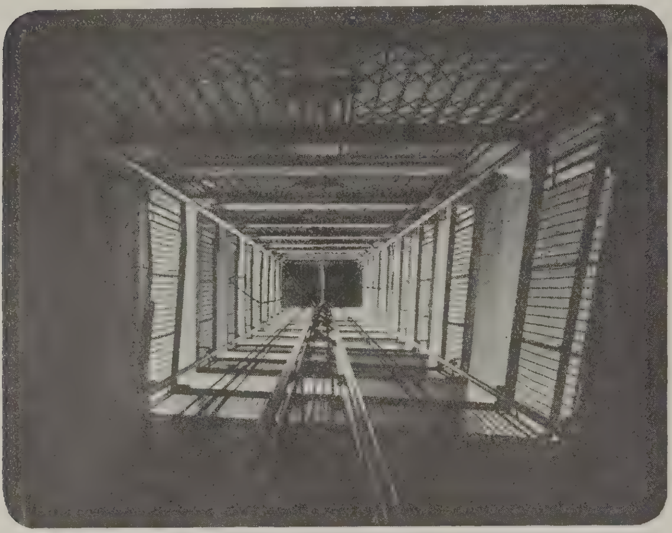
Stafford House Lift Installation.

The building is served by two high-speed passenger lifts, constructed to run in specially prepared lift shafts formed in the main staircase.

Each lift is designed to raise a load of 15 cwt. at a speed of 300 feet per minute.

The lifts travel from the lower basement to the seventh floor, serving at ten landings, a total travel of 106 feet 6 inches.

The lifts are controlled by the Marryat-Scott Patent High-Speed Decellerator System, which allows for automatic decelleration under the control of the operator when approaching floors at which it is desired to stop. The speed of the lift is reduced from 300 feet per minute to 15-20 feet per minute, and a final movement of the car switch is all that is necessary to stop the car without jerk or jar dead level with the floor required.



By an ingenious method of guide construction the usual steel joists spanning the lift well have been dispensed with, giving a clear, open lift shaft, shown in illustration.

Test records conducted on these machines show that the lift averages from 1,900 to 2,300 trips per day, the average daily travel being approximately 14 miles.

This work has been carried out by Messrs. Marryat & Scott, of 28 Hatton Garden, London, E.C.

General.

Mr. Richard Edwards, architect and surveyor, of Treharris, Glam., left estate of the gross value of £7,011.

Mr. A. J. Crump, a local builder, has secured the contract for the erection of a picture palace near the Market Place, Dudley, at £15,250.

Mr. Frank Windsor, F.R.I.B.A., has removed his offices from 1, High Street, Croydon, which has been his address since 1899, to 56, High Street, Croydon.

Messrs. H. Blenkinsop, A.R.I.B.A., and F. Scratchard, M.S.A., of Selby, are the architects for a Church Institute which it is proposed to erect in Selby.

The President of the Royal Institute of British Architects has appointed Mr. Max Clarke, F.R.I.B.A., as arbitrator in the matter of Messrs. C. D. and E. Chuter and Mrs. L. Hoyle.

Messrs. J. M. Porter & Co., architects and surveyors, Colwyn Bay, have completed their plans for carrying out immediately alterations and additions to the Queen's Hotel, Old Colwyn, comprising large dining-room, 28 bedrooms, lavatories, &c.

The Church Crafts League are holding an exhibition of works at the hall of the National Society from January 29 to February 2. The exhibition will be opened by the Bishop of Winchester at 5.30 p.m. on January 29, when Professor Selwyn Image will give an address.

Eastbourne Town Council have approved an unassisted scheme for the erection of 100 working-class houses at an estimated cost of £70,000. The Medical Officer of Health has also advised the Council that they must be prepared to discard at no distant date the military huts, in which some 150 families are living.

The Chelsea Arts Club annual ball will be held at the Royal Albert Hall on February 7. On this occasion the settings and decorations will be "Antarctic." They will be designed by Sir Aston Webb, P.R.A., with the help of Commander Wild and the officers of the "Quest." The theme will be "Inoculation."

The Department of Public Works, Palestine, are inviting applications for the post of chief architectural draughtsman at Jerusalem. The commencing salary is £30 per month, plus living allowance. Candidates should in the first instance address their applications to the Secretary, R.I.B.A., 9 Conduit Street, W., stating age, qualifications and whether married or single.

Falkirk Town Council have generally approved a plan and relative scheme for the improvement of insanitary areas in the burgh. The scheme involves an outlay estimated at £147,000, and is being submitted to the Scottish Board of Health with the view to participation in the Government grant of £30,000 to be allocated annually to Scotland for the improvement of slum areas.

Galashiels War Memorial Committee have considered and approved the amended plans for the war memorial and extension of the Municipal Buildings as prepared by Sir Robert Lorimer, A.R.A., R.S.A. In the new plans a special feature is the clock-tower which is to be erected on the frontage towards the Corn Mill Square, the extension of the Municipal Buildings being carried eastwards.

The Housing Committee of Edinburgh Town Council recommend the Council to appoint a joint consultative committee to consider the question of a regional town planning scheme for the city. The matter was raised by Councillor Deas, who suggested that before proceeding with any town planning scheme they should consult with expert engineers and architects, who would be able to advise them on specific points.

At a meeting of the West Middlesex Joint Town Planning Committee, held at the Guildhall on December 14 last, Messrs. Thomas Adams and Longstreth Thompson, the consultants appointed by the Committee to prepare a regional plan, presented a preliminary report upon their survey of the existing conditions in the region. The report was very favourably received, and the Committee decided to have it printed. It is hoped that it will be published in the course of the next few weeks.

The Birmingham Water Committee have completed negotiations for the purchase of 30 acres of land from the Bournville Village Trust for the new reservoir at Frankley. The committee also are negotiating with Lord Cobham for the purchase of another 90 acres for the same purpose. This reservoir is to provide additional storage at the Birmingham end of the Elan aqueduct, the estimated cost being £500,000.

A sum of £400,000 is to be expended by the Liverpool Corporation on the provision of abattoirs for the city. They will be amongst the biggest in the world, and are to be erected on the site of the Stanley Cattle Market. They will embody some of the principles of the best abattoirs not only in this country, but on the Continent, as noted on the visits which deputations from the Markets Committee have paid to other towns.

A scheme of flats in the East Ward at Scarborough is incorporated in a draft housing scheme approved by the Scarborough Town Council in committee recently. The scheme refers to certain sites in Longwestgate, between Church Stairs Street and Castlegate, and the houses are planned in the form of blocks of flats. Each block has a balcony at the rear, approached by the main staircase. There are nine flats in each block.

Messrs. Redpath, Brown & Co. (Ltd.), St. Andrew Steel Works, Edinburgh, have been successful in securing the order to supply and erect the steelwork required by St. Cuthbert's Co-operative Association for their new bakery at Port Hamilton. The weight of the steelwork is approximately 900 tons, and the principle of construction being adopted is that by which the steelwork can be erected from the basement to the roof independent of all stone work. The construction, when completed, will be one of the largest of its kind in Scotland.

In 1914 the Belfast Corporation proposed to build a public Art Gallery and Museum, and 69 competitive designs were submitted to the Assessor, Sir John J. Burnet, Glasgow. The design of Mr. James C. Wynnes, F.R.I.B.A., M.B.E., late of Edinburgh, now of London, was selected, and he was appointed architect for the new buildings. Owing to the outbreak of the war the erection of the buildings was held over Recently, however, Mr Wynnes had an interview with the Belfast Corporation, and it has now been arranged to proceed with the erection of the buildings at a probable cost of £80,000.

The Ken Wood Preservation Council has now completed the purchase of one hundred acres of the Ken Wood estate from Lord Mansfield for the extension of Hampstead Heath. A contract for the purchase of this portion of the estate at £1,350 an acre was made last July, £10,000 being deposited and six months being allowed in which to complete the purchase. The whole of the money required for the purchase has been raised by voluntary subscription, this being the first occasion on which a large metropolitan open space has been acquired without calling on the ratepayers for assistance.

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BARCELONA Diputacion 239

CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

	Per Ft. Super reduced	
DEMOLITION	In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube		
	To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	12/0	13/4	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	33/0	44/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced		
	Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	595/0	753/0	1129/0
„ „ cement mortar	647/0	805/0	1181/0

	Per Foot Super.	
Damp course	Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	11*d.*	1/3

	Per Foot Super.	
Facings	Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.				
	1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	10/0	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube		
	Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevations generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube		
	Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

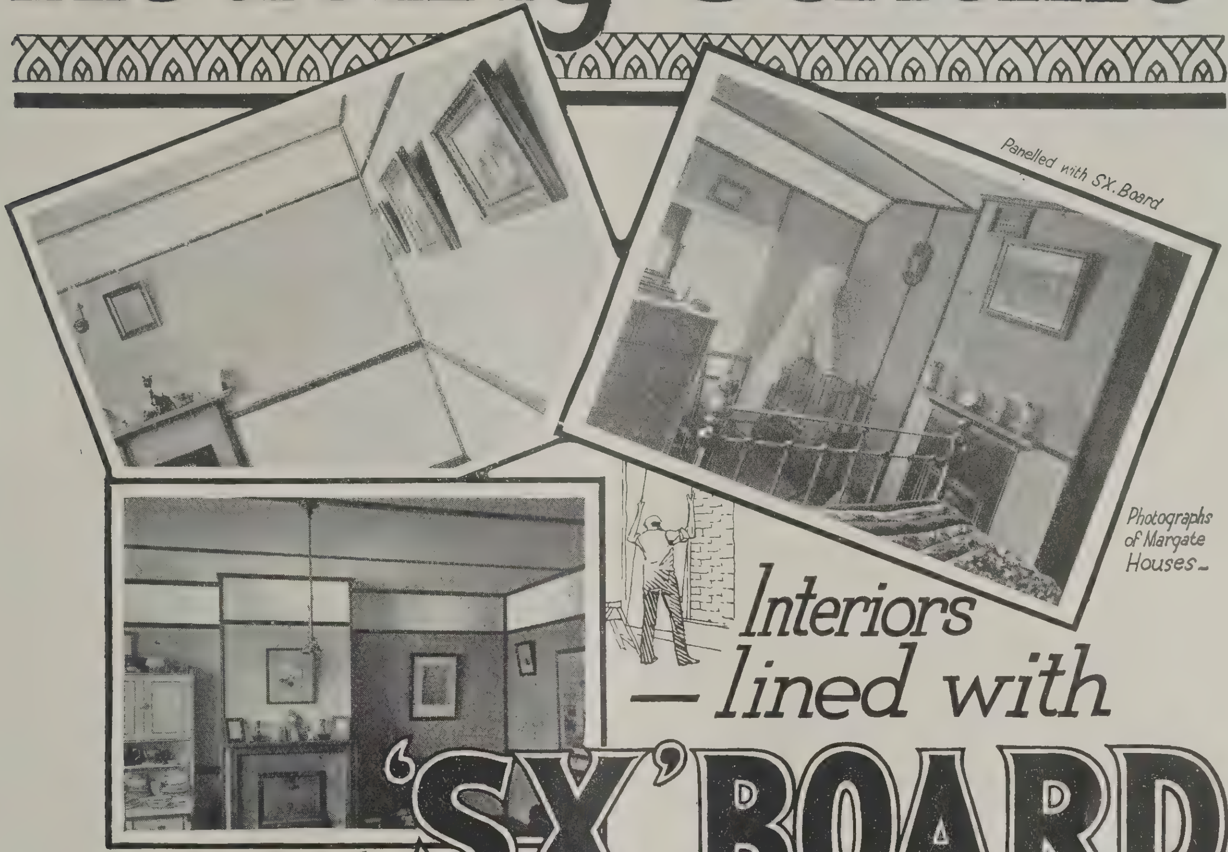
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

	Sectional Area							
Fillets, rails and frames. Per foot run	1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Housing Scheme



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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	46/0	52/6	55/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Per Square Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	88/0	77/0
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	85/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Per Cwt. Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/7½
Bends or shoes, each	2/1	2/7	3/3
Junctions, each	2/8	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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The **ORIGINAL** Boiler of this design and the **only one** with **really efficient** Hot Plate and abundant Hot Water Supply.

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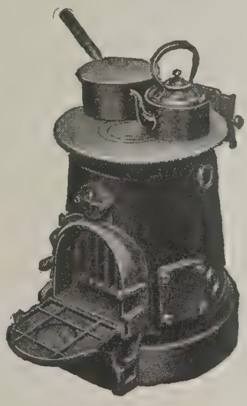

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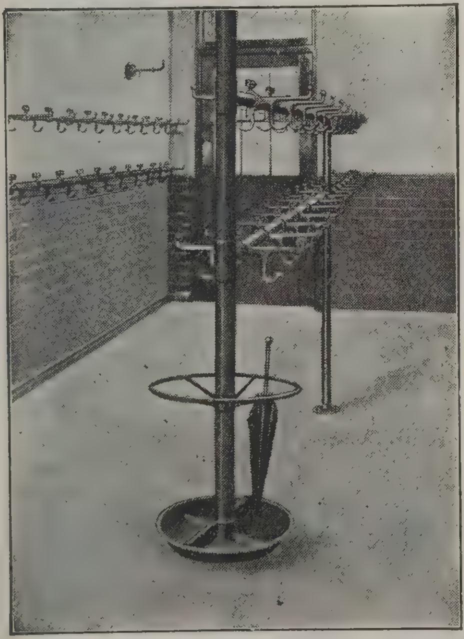

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/[illegible]	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3⁄16in.	¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3½	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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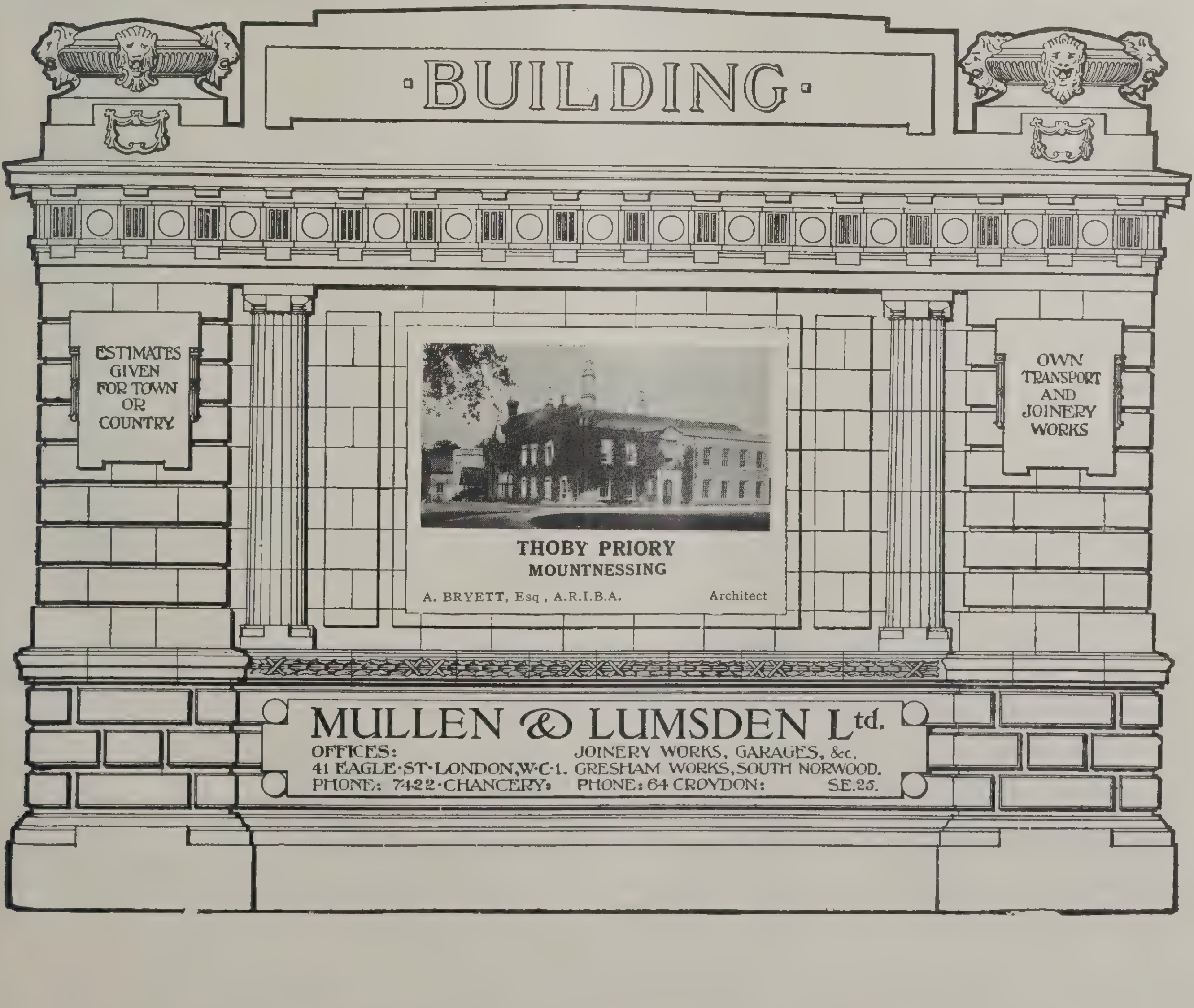

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	Add 1d. to Mechanic's Rate
1916–July.	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0¾	11¾d.		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	Add ½d. to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	Add 1d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	Add 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	8/6	Per yard cube d/d
	Ditto	Hardcore	4/0	
	Bricks	Blue, wirecuts	161/6	
	Ditto	Ditto, pressed	201/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	61/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	97/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	14/0	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	16/0	
	Cement	Keenes	115/0	Per ton delivered
	Ditto	Portland	63/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+12½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1½"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝d.	
	Ditto	Ditto 21 oz.	5½d.	
	Ditto	Ditto 26 oz.	6⅞d.	
	Ditto	Rough cast ¼"	6¾d.	
	Ditto	Wired, cast	10½d.	
	Ditto	Figured, rolled	8d.	
	Ditto	Flemish or Arctic	8d.	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/6	Per cwt.
	Ditto	Pipe	36/0	Ditto
	Ditto	Soil	38/6	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	56/6	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	21/0	Ft. cube
	Ditto	Cuba	36/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. & "	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	16/0	Per foot cube delivered
	Ditto	English	12/0	
	Ditto	European	30/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	77/6	Per ton delivered
	Ditto	Sirapite ,,	76/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/0 3/2	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	15/0	Per yard cube d/d
	Ditto	Washed	16/0	
			No. 8 No. 10	
	Sash	Lines, flax	4/6 5/6	Per knot
	Ditto	Weights, iron	15/0	Per cwt.
	Ditto	Ditto, lead	36/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	530/0	Per 1,000
	Ditto	14"×9", ditto	300/0	Ditto
	Soil pipes	L.C.C., iron, 4"	4/4	Per yard
	Solder	Plumbers'	8½d.	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt.
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	16/0	Per foot cube d/d
	Ditto	Moulmein	24/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	7/0	Per foot cube d/d
	Ditto	Ditto, Carpenters'	4/0	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5d. 6d.	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto. perforated	3d.	Per foot super.

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FRIDAY, JANUARY 19, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

BIRMINGHAM.—January 20.—For work in connection with alterations and refitting of a part of the existing Central Library, Ratcliff Place, to provide a technical library, for the Corporation. Send application and £2 2s. deposit by January 20 to Mr. H. H. Humphries, M.Inst.C.E., city engineer and surveyor, Council House, Birmingham.

BRADFORD, &c.—For erection of any of the following buildings: (1) additions to house, Burley-in-Wharfedale; (2) house, Low Austby, Ilkley; (3) residence, Middleton, Ilkley; (4) two semi-detached villas, Ilkley; (5) studio and garage, Ilkley; (6) residence, Idle, Bradford; and (7) residence, near Cleckheaton. Messrs. Empsall and Clarkson, architects and surveyors, 7, Exchange, Bradford.

CHATHAM.—January 30.—For erection of the Lord Kitchener Memorial Homes for disabled soldiers and sailors at Fort Pitt Road. Mr. R. L. Honey, F.S.I., M.S.A., architect, Town Hall, Chatham.

DEWSBURY.—January 29.—For the whole of the works required in public conveniences, Market Place, for the Corporation. Deposit £1 1s. The Borough Surveyor's Office, Dewsbury.

DUDLEY.—January 22.—For erection of twenty houses on the Woodside site, for the Borough Council. Send applications and £5 5s. deposit by January 22 to Mr. F. H. Gibbons, borough engineer and housing director, Town Hall, Dudley.

EASTBOURNE.—February 1.—For erection of 100 houses on the Old Town site, for the Housing Committee. Deposit £2 2s. The Borough Engineer's Office, Town Hall, Eastbourne.

ELY.—January 26.—For various additions and alterations in connection with the completion of the new hospital hut, for the Ely Joint Hospital Committee. Mr. A. K. Campbell, clerk, Market Square, Ely.

FITZWILLIAM.—January 29.—For the following work: Contract No. 1, the erection of 90 dwelling-houses; contract No. 2, the erection of four pairs of semi-detached villas; contract No. 3, streets and sewers, at Fitzwilliam, near Wakefield, for the South Kirkby, Featherstone and Hemsworth Collieries, Ltd. Deposit £2 2s. Messrs. Garside and Pennington, architects and surveyors, Ropergate, Pontefract.

GILLINGHAM.—February 6.—For erection of Sunday school, &c., in Nelson Road, for the Trustees of the Primitive Methodists. Deposit £2 2s. Mr. E. J. Hammond, C.E., M.S.A., architect and surveyor, 21 Balmoral Road, Gillingham.

GOLCAR.—January 23.—For the various works required in the erection of 10 houses at Bull Close, Leymoor, for the Golcar Urban District Council. Messrs. Lunn & Kaye, Milnsbridge.

HEREFORD.—January 26.—For erection of 16 non-parlour type houses at Hereford, to be built in pairs, blocks of four, six and eight respectively, for the Town Council. Mr. W. McNeil Shimmin, A.M.I.C.E., city engineer and surveyor, Town Hall, Hereford.

ILKLEY.—January 31.—The West Riding Public Health and Housing Committee invite whole or separate tenders for the following works: (a) Internal painting, and (b) rebuilding of engineering block at Middleton-in-Wharfedale Sanatorium, near Ilkley. (1) Concretor and builder; (2) carpenter and joiner; (3) slater; (4) plumber and glazier; (5) plasterer; (6) painter. Send application by January 24 to the West Riding Architect, County Hall, Wakefield.

LIVERPOOL.—January 26.—The Commissioners of His Majesty's Works, &c., invite tenders for alterations, &c., to premises for the Royal Telephone Exchange, Liverpool. Deposit £1 1s. H.M. Office of Works, James Street, Liverpool, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LONDON.—January 31.—The Metropolitan Asylums Board invite tenders for new corrugated iron roofs and certain repairs, &c., to temporary buildings at North Eastern Fever Hospital, St. Anne's Road, Tottenham, N.15. Deposit £1. Mr. T. Cooper, M.I.C.E., M.I.M.E., engineer-in-chief, the Office of the Board, Embankment, E.C.4.

LONDON.—February 6.—For the execution of alterations and renovations in the "XX" Block of their Lambeth Hospital at Kennington, for the Lambeth Board of Guardians. Deposit £2. Mr. J. L. Goldspink, clerk, Guardians' Boardroom and Offices, Brook Street, Kennington Road, S.E.11.

LONDON.—February 8.—For erection on the Holderness House estate of a building consisting of an office and store on the ground floor and a self-contained flat on the first floor, for the Lambeth Borough Council. Deposit £3 3s. Mr. B. Penny, town clerk, Lambeth Town Hall, Brixton Hill, S.W.2.

LONDON.—February 13.—For erection of working-class dwellings upon a site in Hortensia Road, Chelsea, for the Chelsea Borough Council. (Mr. P. B. Tubbs, F.R.I.B.A., architect.) Deposit £2 2s. Mr. J. T. Jefferys, town clerk, Town Hall, King's Road, Chelsea, S.W.3.

MANCHESTER.—January 20.—For erection of new business premises on the site of Nos. 36 to 40, Market Street, and No. 2, Pall Mall, Manchester, for Messrs. Hartley, Bowden and Morton, 39 Princess Street, Manchester, agents for the owner, the Right Hon. the Earl of Ducie. Messrs. Halliday, Paterson and Agate, architects, 14 John Dalton Street, Manchester.

MANCHESTER.—February 7.—For construction and erection of an engine shed at their Bradford Road station, for the Corporation Gas Committee. Mr. W. Newbigging, consulting engineer, 5 Norfolk Street, Manchester.

NEWARK.—January 22.—The Public Health Committee invite tenders for the fourth instalment of the conversion scheme consisting of 88 conversions in nine separate blocks. Mr. J. W. Hipwood, A.M.I.C.E., borough surveyor, Town Hall, Newark.

PORTSMOUTH.—January 23.—For some or all of the works to be done and materials to be supplied in the construction of three conveniences at the Camber, Portsmouth, for the Town Council. The Borough Engineer's Office, Town Hall, Portsmouth.

ROCHFORD.—January 27.—For erection of hospital block (54 beds), extension of nurses' home (28 beds), new Board room, &c., electric lighting power house, and other alterations and additions at the Poor Law Institution, for the Guardians. Send application and £1 1s. deposit by January 27 to Mr. N. Evans, Lic.R.I.B.A., 27 County Chambers, Weston Road, Southend-on-Sea.

ROMFORD.—January 29.—For erection of a new operating theatre at their hospital, for the Guardians. Deposit £2 2s. Messrs. Harrington & Evans, architects, 45 Bedford Row, London, W.C.1.

SKINBURNESS.—January 25.—For works required in erection of a house at Skinburness, for Captain J. Learmont, O.B.E., D.L., Chiffel View, Skinburness, or Mr. H. Oldfield, M.S.A., architect and surveyor, Workington.

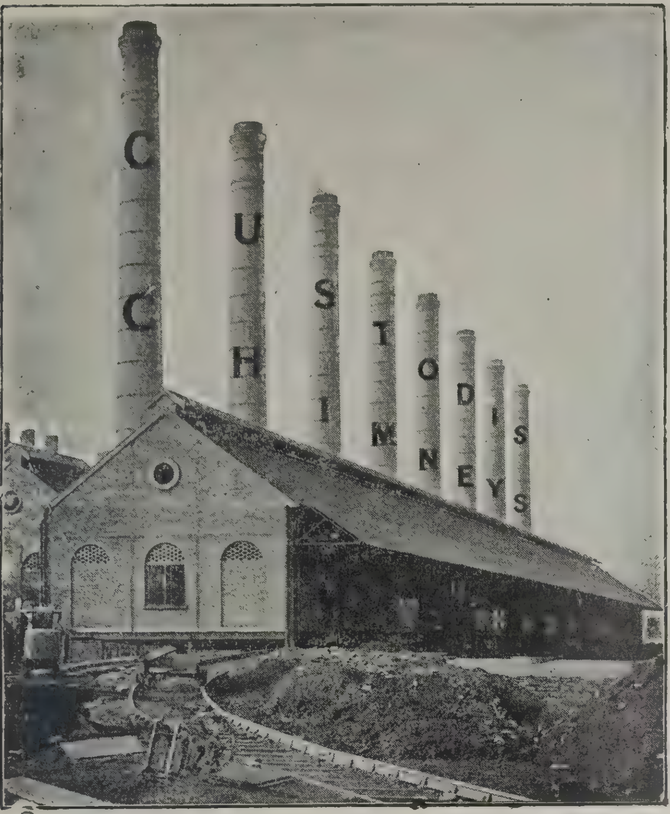
SOWERBY BRIDGE.—January 29.—For the excavators', masons' and concretors' work required in altering the abutments, &c., in connection with the erection of a new steel bridge over the canal at Chapel Lane, Sowerby Bridge, for the Urban District Council. Mr. J. Eastwood, A.M.I.C.E., surveyor, Council Offices, Sowerby Bridge.

SOWERBY BRIDGE.—January 29.—For the various works required in erection of four houses on the Albert Road site, for the Urban District Council. Mr. J. Eastwood, A.M.I.C.E., surveyor, Council Offices, Sowerby Bridge.

WATFORD.—January 15.—For erection of the Watford and District Peace Memorial Hospital, Watford (about 100 beds and administrative quarters). Send application by January 15 to Mr. H. Brown, hon. treasurer, Lyndale, Upton Road, Watford, Herts. Mr. W. Marchment, architect, 267 Kingston Road, Merton, S.W.19.

WESTHAM.—January 29.—For erection of 50 houses of following types: (*a*) 12 blocks semi-detached parlour type, (*b*) 13 blocks semi-detached non-parlour type, for the Weymouth and Melcombe Regis Borough Council. Deposit £2 2s. Mr. F. Fernihough, town clerk, Municipal Offices, Weymouth, Dorset.

WHITSTABLE.—January 25.—For erection of 10 houses, for the Urban District Council. Mr. A. A. Kemp, architect, 9 Tankerton Terrace, Tankerton, Whitstable.



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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%

Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6

Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced — In small quantities	Per Ft. Super reduced — In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube — To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	11/0	12/4	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 " "		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced — Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	576/0	740/0	1135/0
" " cement mortar	596/0	760/0	1155/0

Damp course	Per Foot Super. — Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	11*d.*	1/3

Facings	Per Foot Super. — Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. — 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	10/0	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube — Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevations generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		
Gutter boards and bearers per foot super.			1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2¼*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube — Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area — 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	46/0	52/6	55/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run 2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	88/0	77/0
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	85/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/7½
Bends or shoes, each	2/1	2/7	3/3
Junctions, each	2/8	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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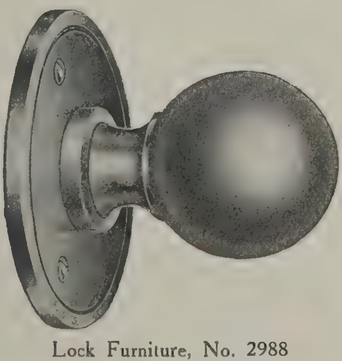

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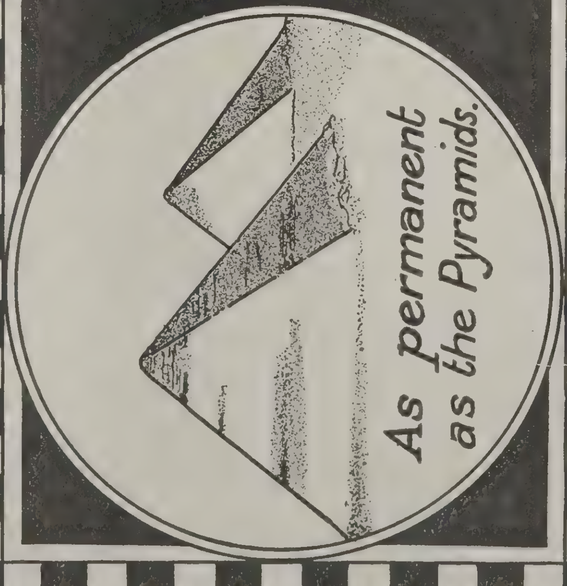
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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in	¾in	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster.. ..	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous.. ..	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/[illegible]	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3½	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes ..	Per Foot Run 0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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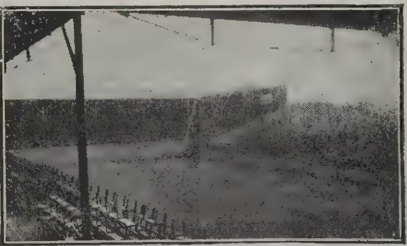

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	.. Pipes, iron, 2″ ..	2/6	Per yard
	Asbestos ..	.. Sheeting ..	1/9	Ditto
	Ditto ..	.. Ditto, corrugated ..	3/6	Ditto
	Aluminium	.. Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast ..	.. Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	.. Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	.. Brass	5/6 7/9 13/4	each
	Brick ..	.. Broken	8/6	Per yard cube d/d
	Ditto ..	.. Hardcore	4/0	
	Bricks ..	.. Blue, wirecuts ..	161/6	
	Ditto ..	.. Ditto, pressed ..	201/6	Per 1,000 F.O.R. London
	Ditto ..	.. Firebricks	223/0	
	Ditto ..	.. Fixing, breeze ..	80/0	
	Ditto ..	.. Flettons	55/0	
	Ditto ..	.. Reds	140/0	
	Ditto ..	.. Rubbers	265/0	
	Ditto ..	.. Stocks	97/6	Delivered
	Ditto ..	.. White	120/0	F.O.R. London
	Ditto	.. White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	.. Ditto heade ..	470/0	
	Ditto ..	.. 2nd quality	20/0	Per 1,000 less
	Breeze ..	.. Coke	10/6	Per yard cube d/d
	Ditto ..	.. Pan	5/6	
C	Cartage ..	.. Of Bricks, blue ..	14/0	Per 1,000 from rail to job.
	Ditto ..	.. Of ditto, Flettons ..	9/0	
	Ditto ..	.. Of ditto, glazed ..	16/0	
	Cement ..	.. Keenes	115/0	Per ton delivered
	Ditto	.. Portland	58/0	
	Ditto	.. White, ditto	312/0	
	Copper	.. Nails	1/4	Per lb.
	Ditto	.. Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	.. Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto ..	.. Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto ..	.. Ditto	+12½%	Delivered
			4″ 6″	
	Drains, iron	.. Pipes	5/0 7/9	Per yard delivered
	Driers ..	.. For paint	60/0	Per cwt.
E	Enamel ..	.. White, best	25/0	Ditto, per gallon
F	Felt ..	.. Roofing	10/7	Delivered, per square
	Fireclay ..	.. Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring ..	.. Deal, P.E.	26/0 33/0	Per square delivered
	Ditto ..	.. Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	.. Tubes, Standard list ..	— 55%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 50%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	.. Ditto 3 ditto ..	2/2½	
	Ditto ..	.. Ditto 5 ditto ..	2/11	
	Ditto ..	.. Ditto 7 ditto ..	3/4	
	Ditto ..	.. Ditto 10 ditto ..	3/7	
	Ditto ..	.. Ditto 25 ditto ..	3/9½	
	Ditto ..	.. Ditto 100 ditto ..	4/7	
	Ditto ..	.. Sheet, 15 oz. ..	3⅝*d.*	
	Ditto ..	.. Ditto 21 oz. ..	5½*d.*	
	Ditto ..	.. Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	.. Rough cast ¼″ ..	6¾*d.*	
	Ditto ..	.. Wired, cast ..	10½*d.*	
	Ditto ..	.. Figured, rolled ..	8*d.*	
	Ditto ..	.. Flemish or Arctic ..	8*d.*	
	Ditto ..	.. Lead lights in plain sheet squares	2/0	
	Gold leaf ..	.. English	2/9	Per book
	Gold size	.. Best	20/0	Per gallon
	Granite ..	.. Chippings	28/0	Delivered, per yard
	Ditto	.. Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire ..	.. Horse, cart and man ..	25/0	Per day
	Ditto ..	.. Lorry and driver ..	80/0	Ditto
	Ditto ..	.. Steam roller .. .. Water cart and men ..	100/0	Ditto
	Ditto ..	.. Sacks	3*d.*	Each
	Hot water	.. Tubes, Standard list	— 50%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 45%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 37½%	Ditto
J	Joists ..	.. Steel, rolled	240/0	Per ton delivered
	Ditto ..	.. Wood, soft, 9″×3″ ..	3/9	Per foot cube delivered
	Ditto ..	.. Ditto, ditto, 7″×2½″	3/2	
	Ditto ..	.. Ditto, ditto, 6″×2″ ..	3/0	
K	Knotting ..	.. ..	35/0	Per gallon
L	Lathing ..	.. Metal	1/6	Per yard
	Ditto ..	.. Wood, sawn	3/9	Per bundle
	Lead ..	.. Sheet	35/6	Per cwt.
	Ditto ..	.. Pipe	36/0	Ditto
	Ditto ..	.. Soil	38/6	Ditto
	Ditto ..	.. White	55/0	Ditto
	Lime ..	Grey stone	56/6	Per ton
	Ditto ..	.. Blue lias	58/6	Ditto
M	Mahogany	.. Honduras	21/0	Ft. cube
	Ditto ..	.. Cuba	36/0	Ditto
			⅝″ ¾″ 1″	
	Matching ..	.. Deal, T. G. &	18/0 21/0 28/0	Per square delivered
N	Nails ..	.. Brads, floor	22/9	Per cwt. delivered
	Ditto ..	.. Cut clasp	23/0	
	Ditto ..	.. Lath	31/0	
	Ditto ..	.. Wire, oval	26/0	
O	Oak ..	.. American	16/0	Per foot cube delivered
	Ditto ..	.. English	12/0	
	Ditto ..	.. European	30/0	
	Ditto ..	.. Japanese	20/0	
	Oil ..	.. Linseed, boiled ..	4/1	Per gall.
	Ditto ..	.. Ditto, raw	3/10	ditto
P	Paint ..	.. Mixed	76/3	Per cwt. d/d
			2″ 3″	
	Partitions	.. Breeze	2/3 3/0	Per yard sup. d/d
	Plaster ..	.. Paris, coarse	77/6	Per ton delivered
	Ditto ..	.. Sirapite ,, ...	76/0	
	Ditto ..	.. Slabs, ceiling	2/3	Per yard
	Putty ..	.. Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	.. Gutters, O.G. ..	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto ..	.. Pipes, round	2/0 3/2	
	Roofing, iron	.. Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	.. Ordinary	13/0	Per yard cube d/d
	Ditto ..	.. Washed	14/0	
			No. 8 No. 10	
	Sash ..	.. Lines, flax	4/6 5/6	Per knot
	Ditto ..	.. Weights, iron ..	15/0	Per cwt.
	Ditto ..	.. Ditto, lead	36/0	Ditto
	Size ..	.. Best	5/6	Per fkn.
	Slates ..	.. 20″×10″, Welsh ..	530/0	Per 1,000
	Ditto ..	.. 14″×9″, ditto	300/0	Ditto
	Soil pipes	.. L.C.C., iron, 4″ ..	4/4	Per yard
	Solder ..	.. Plumbers'	8½*d.*	Per lb.
	Steam ..	.. Tubes, Standard list ..	—45%	Delivered
	Ditto ..	.. Fittings, ditto ..	—40%	Ditto
	Ditto ..	.. Tubes, galvanised ..	—27½%	Ditto
	Steel ..	.. Angles	13/6	Per cwt.
	Ditto ..	.. Bolts	35/0	Ditto
	Ditto ..	.. Joist	12/0	Ditto
	Ditto ..	.. Stanchions	17/0	Ditto
	Stone ..	.. Bath	4/2	Per foot cube d/d
	Ditto ..	.. Portland	5/8	
	Ditto ..	.. York	6/9	
T	Tar ..	.. Stockholm	1/0	Per gallon
	Teak ..	.. Eng.	16/0	Per foot cube d/d
	Ditto ..	.. Moulmein	24/0	
	Terebine ..	.. ..	13/6	Per gallon
			2″ 4″	
	Thimbles ..	.. Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	.. Plain, roofing ..	120/0	Per 1,000
	Ditto ..	.. 6″×6″, white glazed ..	12/6	Per yard
	Timber ..	.. Deal, joinery	7/0	Per foot cube d/d
	Ditto ..	.. Ditto, Carpenters'	4/0	
	Ditto ..	.. Slating battens ..	3/0	Per 100 feet
			1½″ 2″	
	Traps ..	.. Cast, lead, S.	3/0 4/3	Each
	Ditto ..	.. Ditto, P.	2/4 3/5	Ditto
	Turpentine	..	9/0	Per gallon
			½″ ¾″ 1″	
U	Unions ..	.. Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves ..	.. Ball	5/6 7/9 13/4	Each
	Varnish ..	.. Hard, oak	15/0	Per gallon
	Ditto ..	.. Copal	17/0	Ditto
	Ditto ..	.. Flat	16/0	Ditto
W	Whiting ..	.. Gilders'	3/0	Per cwt.
	Wire ..	.. Guards, galvd. ..	2/6	Per foot super
			2″ 4″	
	Ditto ..	.. Balloon, ditto, ditto ..	5*d.* 6*d.*	Each
	Ditto ..	.. Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	.. Sheeting ..	40/0	Per cwt.
	Ditto ..	.. Ditto, perforated ..	3*d.*	Per foot super.

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Architects.

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THE ARCHITECT

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"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

◆

FRIDAY, JANUARY 26, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

CONTRACTS OPEN.

AYR.—January 31.—For the following works, for the Town Council, viz. : (1) Excavator, brick and mason work ; (2) carpenter and joiner work ; (3) glazier work ; (4) slater and roughcast work ; (5) plumber work ; and (6) plaster and cement work ; comprising 40 dwelling-houses to be erected on Woodfield site. Messrs. John Service & Son, measurers, 55 Newmarket Street, Ayr. Send application and £1 1s. for each schedule by January 31 to Mr. P. A. Thomson, town clerk, Town Buildings, Ayr.

BARNET.—February 5.—For erection of 42 houses and contingent works on the Wentworth estate, for the Urban District Council. Deposit, £2 2s. Mr. W. B. Chancellor, engineer and surveyor, Municipal Offices, Barnet.

BIRMINGHAM.—For the supply and erection of large quantities of dwarf stone walling on housing sites for the City Council. Mr. Herbert H. Humphries, M.Inst.C.E., City Engineer and Surveyor and Executive Officer for Housing Schemes, The Council House, Birmingham.

BRADFORD.—February 13.—For erection of the following houses (Class "A") in accordance with the following conditions : Housing scheme No. 3, Bradford Moor, 132 houses ; housing scheme No. 9, Bierley House estate, 30 houses ; housing scheme No. 11, Swain House estate, 26 houses. (1) Contractors may tender for separate trades or for the whole of the work in all trades complete ; (2) the Corporation reserve to themselves the right to accept tenders for the whole or any number of the houses ; (3) the tenders shall be based upon fixed prices for labour and materials, and upon plans and specification only. Bills of quantities will not be provided. The City Architect, Town Hall, Bradford.

BRIDGEND.—For erection of a residence at Bridgend. Deposit £2 2s. Messrs. Cook & Edwards, M.M.S.A., architects, 22 Dunraven Place, Bridgend.

DARLINGTON.—February 8.—For erection and completion of 50 houses on the Polam Hill site, for the Corporation. Designs include pairs and blocks of four houses, some of which have been commenced and partially erected by the National Building Guild, Ltd. Builders may tender for the whole or part of the blocks. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

GLASGOW.—For building, plumbing, joiner, digging, electrical, slating, railings for 500 bungalows. The City and Suburban Housing Association, 248 West George Street, Glasgow.

HAWICK.—January 31.—The Deacons' Court invite separate tenders for mason, joiner, slater and plumber, plaster and glazier work in connection with the reconstruction of St. Andrew's U.F. Church, Hawick. Mr. A. Inglis, F.I.A. (Scot.), architect, 14 Bridge Street, Hawick.

HUDDERSFIELD.—February 1.—For erection of 26 workmen's dwellings at Birchencliffe, Huddersfield, for the Corporation. Mr. H. Sutcliffe, borough architect, 1 Peel Street, Huddersfield.

HUDDERSFIELD.—February 2.—For various works required in the erection of a garage and nine lock-up garages for Birkby Hall Motors, Ltd. Mr. N. Culley, F.R.I.B.A., F.S.Arc., architect and surveyor, 13 John William Street, Huddersfield.

ISLE OF MAN.—February 7.—For the whole of the works in erection of a secondary school in Douglas, for the Isle of Man Central Education Authority. Mr. J. M. Bottomley, architect, West Royd, Wheatlands Grove, Harrogate. Send application and £2 2s. deposit by February 7 to Mr. T. R. Lewin, clerk, Education Offices, Regent Street, Douglas, Isle of Man.

KIDLINGTON, OXON.—For building a factory adjoining Kidlington Railway Station, for the Oxfordshire Farmers' Bacon Factory, Ltd. The Secretary, O.F.B.F., 12 Beaumont Street, Oxford.

LLANDUDNO.—February 7.—For 12 houses to be erected on the Mowbray Road and Dyffryn Road site, for the Urban District Council. Mr. W. T. Ward, engineer and surveyor, Town Hall, Llandudno.

LONDON.—February 7.—For conversion of certain buildings at 285 Harrow Road, W.9, into receiving wards and new main entrance, for the Paddington Board of Guardians. Deposit £3 3s. Mr. H. Percy Adams, F.R.I.B.A., 9 Knightsbridge, Hyde Park Corner, S.W.

LONDON.—February 8.—For alterations to Sports Pavilion, Memorial Grounds, West Ham, E., for the Borough Council. Deposit £1. The Borough Engineer, Town Hall, West Ham, E.15.

LOUGHBOROUGH.—For the construction and erection of extensions to the electricity power station, including contingent works, for the Corporation. Depost £5 5s. Mr. A. H. Walker, A.M.I.C.E., borough surveyor, Town Hall, Loughborough.

PONTARDAWE.—February 7.—For the completion of 52 semi-detached non-parlour-type houses on the following sites, for the Pontardawe Rural District Council, viz. : Contract No. (23) Caegurwen site, 16 houses ; (24) Alltwen, 12 ; (25) Ystalyfera, 10 ; (26) Alltacham, 14. Mr. E. B. Jones, M.S.A., architect, Council Offices, Pontardawe.

PONTLLANFRAITH.—February 7.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of 70 houses at Pontllanfraith, Mon. Tenders will also be considered for the roads and sewers only. Deposit £1 1s. The Surveyor, Urban District Council Offices, Pontllanfraith ; the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

READING.—January 30.—The Commissioners of His Majesty's Works, etc., invite tenders for supplying and laying maple woodblock flooring at the new Post Office, Reading. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

SOUTHAM.—February 5.—For conversion of the Poor Law Institution into dwellings, for the Rural District Council. Mr. C. W. E. Webb, clerk, Market Hill, Southam.

SOUTHAMPTON.—January 31.—For building the Taunton's School, for the Governors. Send application and £3 3s. deposit by January 31 to Messrs. Gutteridge and Gutteridge, architects, 9 Portland Street, Southampton.

SOUTH ELMSALL, YORKS.—For rebuilding the Plough Inn, South Elmsall, for Messrs. W. Pickersgill & Co., Ltd., Old Castle Brewery, Pontefract. Messrs. Garside & Pennington, architects and surveyors, Ropergate, Pontefract.

SOUTHEND-ON-SEA.—February 5.—For the erection and completion of the following blocks of houses, comprising 26 parlour type, 26 non-parlour type, with three bedrooms and four non-parlour type with two bedrooms : Three blocks of 2 houses, 4 blocks of 3 houses, 2 blocks of 4 houses, and 5 blocks of 6 houses, for the Corporation. Deposit £3 3s. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Southend-on-Sea.

WAKEFIELD.—For the re-tiling of the floor of the Corporation swimming bath with white glazed tiles (non-porous backs). Size, 70 feet by 30 feet. City Surveyor, Town Hall, Wakefield.

WAKEFIELD.—January 30.—For all or separate trades in connection with the erection of 18 B3 type and 28 A3 type houses on the Portobello housing estate, for the Corporation. Send names to Mr. P. Morris, architect and surveyor, Town Hall Chambers, Wakefield.

WASHINGTON SMEETH.—January 31.—For repairs to farmhouse and farm buildings at Washington Smeeth for the Kent County Council. Mr. P. W. Cox, chief agricultural officer, Sessions House, Maidstone.

WESTBURY-ON-TRYM.—February 3.—For erection of a Lodge at Canford Cemetery, for the Bristol Corporation. Deposit £2 2s. The City Valuer's Office, The Exchange, Bristol.

WEYMOUTH.—February 6.—For second instalment of housing scheme at Westham, consisting of 50 houses of the following types, for the Estates, etc., Committee, viz. : 12 blocks semi-detached parlour type ; 13 blocks semi-detached non-parlour type. Deposit £2 2s. Mr. F. Fernihough, town clerk, Municipal Offices, Weymouth, Dorset.

YEOVIL.—February 5.—For construction of a dressing yard with reinforced concrete pits for Messrs. Invelnap, Ltd., at their glove factory in Victoria Road. Deposit £1 1s. Mr. A. J. B. Abbott, P.A.S.I., M.R.S.I., architect and surveyor, 12A, Vicarage Street, Yeovil.

We Manufacture

Rustic Facing Bricks (Patent No. 13970).
"Rus" Walling (Trade Mark, "Rus").
Decorative Brickwork—Vases, Urns, Sundial Pedestals, etc.
Sand Faced Bricks. Clinker Pavors.
Metallic Wire-Cut. Building and Engineering Bricks.
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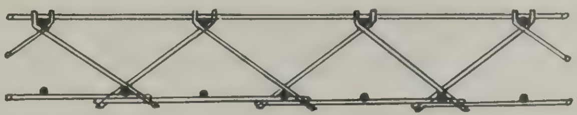
Walker-Weston (Patent) Double-Layer Interlocked Reinforcement.



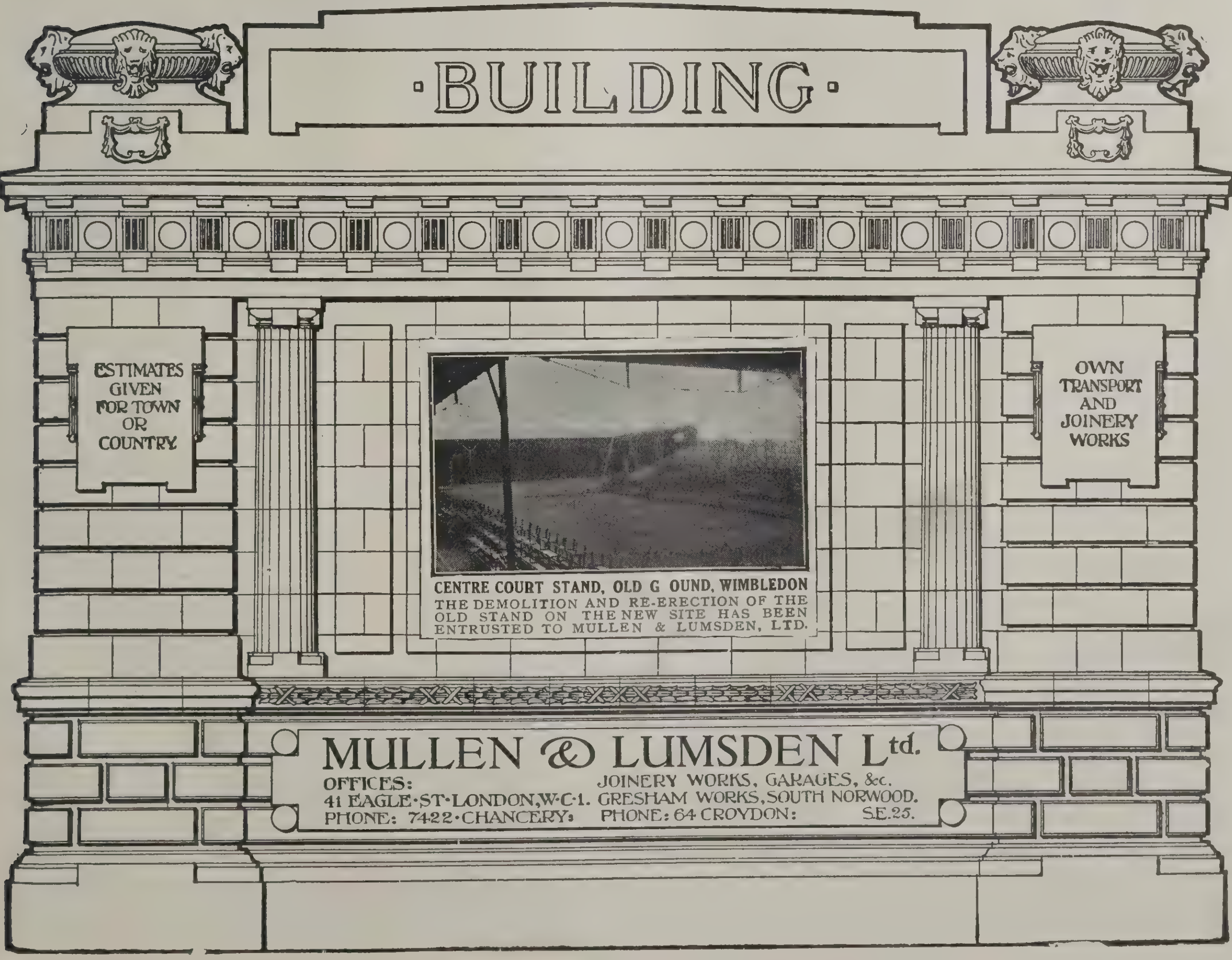
Patent No. 117/915.

NORTH CIRCULAR ROAD—WILLESDEN.
Reinforced by Walker-Weston Double-Layer Reinforcement.

This Reinforcement is based on sound engineering principles. It strengthens the concrete against flexure, contraflexure and shear stresses, distributes surface loads uniformly, and the reinforcing steel is permanently in position.

Patentees and Manufacturers:

The WALKER-WESTON CO. Ltd.
EMPIRE HOUSE, 7 WORMWOOD ST.,
LONDON, E.C.2.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CENTRE COURT STAND, OLD GROUND, WIMBLEDON
THE DEMOLITION AND RE-ERECTION OF THE OLD STAND ON THE NEW SITE HAS BEEN ENTRUSTED TO MULLEN & LUMSDEN, LTD.

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CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	11/0	12/4	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0	„	„

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	576/0	740/0	1135/0
„ „ cement mortar	596/0	760/0	1155/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	11*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	10/0	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		
Gutter boards and bearers per foot super.			1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.			

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Housing Scheme

Interiors —lined with
'SX.' BOARD

THESE photographs showing how "SX" Board was applied to walls and ceilings in an important Housing Scheme clearly demonstrate the practicability of "SX" Board as an alternative to plaster. The fact that "SX" Board is unaffected by vibration and therefore cannot crack or fall is an important feature. A house lined with "SX" Board can be decorated and occupied immediately. There is no waiting while wet walls dry—this is another notable advantage. In view of the early revival in building which is anticipated in many quarters, the advantages of a good wallboard such as "SX" merit careful consideration.

WALLBOARD SX FOR INTERIOR LINING
BRITISH MADE

SX.BOARD
The British Wall Board
THAMES MILLS, PURFLEET.

S.B.103

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	46/0	52/6	55/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	88/0	77/0
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	85/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/7½
Bends or shoes, each	2/1	2/7	3/3
Junctions, each	2/8	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

Try Rownsons!

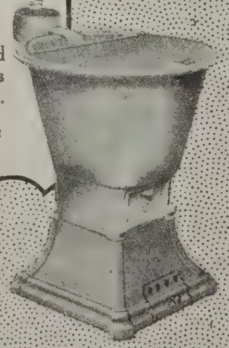
Some features of the "ROWNFORTH" Portable Copper:—

Every part is easily replaceable. The "ROWNFORTH" Portable Copper takes an ordinary furnace pan.

The lid is hinged, forms a table, and is provided with a leather handle — it cannot burn you.

The fire-place being brick-lined economises coal, conserves heat and gives quicker results.

Can be supplied either on base as illustrated or on legs



ROWNFORTH PORTABLE COPPERS *or* BOILERS

WE have paid particular attention to the problems of labour saving and economy in regard to working class dwellings, not only in respect to the fittings themselves in relation to the housewife's work and desires, but also to economy in the manufacture and maintenance cost.

The Women's Council, after investigation of housing requirements, stated that an outlet from the boiler to convey the steam to the chimney was essential.

A glance at the illustration will show that this outlet is one of the features of the "ROWNFORTH." No steam escapes into the wash-house.

GALVANISED PAN.

	8 Galls.	10 Galls
On Legs ...	**78/9**	**93/9**
On Base ...	**85/6**	**98/3**

Fitted with powerful gas-burner or with draw-off cock, at slight extra cost.

ROWNSON'S GALVANISED FURNACE PANS.

These pans are made by "mass production" methods and guarantee faultless castings at competitive prices.

8 and 10 gallons to suit Rownforth coppers.

Gallons	6	**8**	**10**	12	14	16
In Crates of	11	9	7	7	6	5 pans

Price:
Whole crates **1/10½** per gall.
Lesser quantities **1/11½** " "

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CHEMICAL HAND
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helps towards this end, as its instantaneous action and absolute reliability reduce damage to the minimum.

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Give your clients *better* service——

The successful architect is he who strives to give his clients better service every day. For instance, he finds it enhances his reputation to specify the materials and products which he knows to be the best for their particular class of work. That is why architects and builders, when dealing with Iron and Steel Structures,

Specify
"BITUMASTIC" Regd.
The "World's Record" Anti-Corrosive

One application will defy corrosion for very many years. In some cases it has protected steel surfaces for 20 years without having to be renewed. Full particulars forwarded on request.

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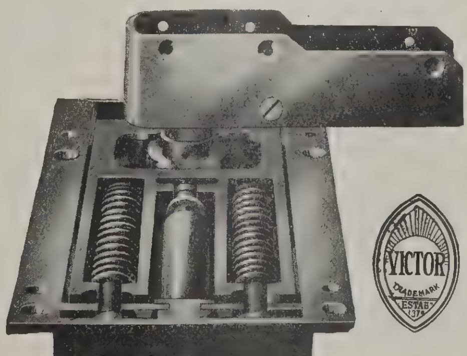
Cardiff, London, Birmingham, Manchester, Glasgow, Leeds, Liverpool, etc.

ROBERT ADAMS

"VICTOR"
Door Springs
and Checks

The **"Victor" Door Springs** and Hinges are by general consent admitted to be the most durable and reliable for all kinds of doors.

The New Shallow "Victor" Double-Action Spring Hinge. Total Depth 1⅜ in.



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All kinds of FITTINGS of QUALITY for Doors and Windows.

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5512 MUSEUM

"A STONE HOUSE IS NOT SO DURABLE AS ONE OF BRICK. A BRICK HOUSE, WELL CONSTRUCTED, WILL OUTLAST ONE BUILT OF GRANITE."—*Vide* "POPULAR SCIENCE SIFTINGS."

THE BEST HOUSE IS ONE BUILT OF
EASTWOODS
BRICKS

EASTWOODS LIMITED.
HEAD OFFICE: 47 BELVEDERE ROAD, LONDON, S.E.1.

CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3½	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on— Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for :—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
	Per Foot Run										
If in narrow bands or on pipes	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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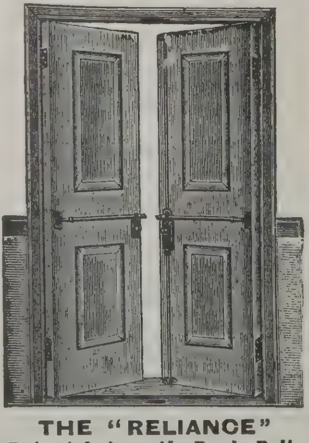

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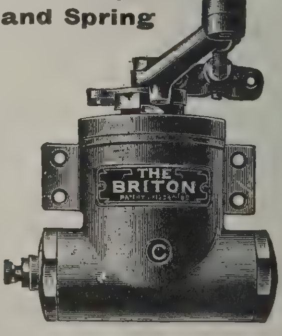

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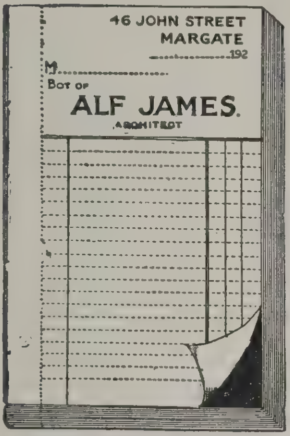

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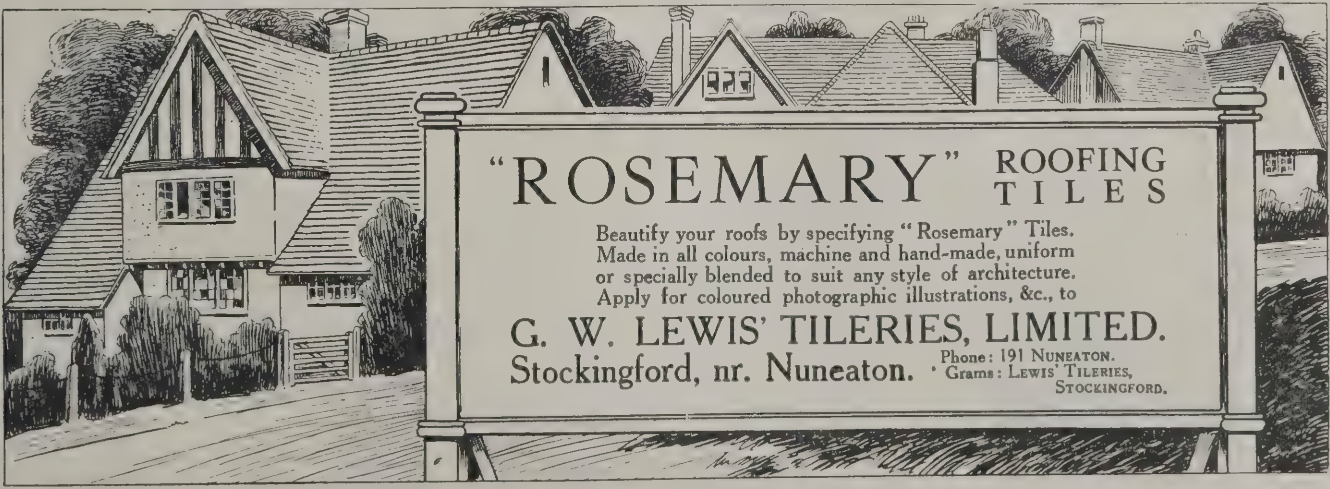

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	8/6	Per yard cube d/d
	Ditto	Hardcore	4/0	
	Bricks	Blue, wirecuts	161/6	Per 1,000 F.O.R. London
	Ditto	Ditto, pressed	201/6	
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	97/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	14/0	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	16/0	
	Cement	Keenes	115/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	–17½%	F.O.R. London
	Ditto	Ditto	+12½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9″×3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″×2½″	3/2	
	Ditto	Ditto, ditto, 6″×2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/6	Per cwt.
	Ditto	Pipe	36/0	Ditto
	Ditto	Soil	38/6	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	56/6	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	21/0	Ft. cube
	Ditto	Cuba	36/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	16/0	Per foot cube delivered
	Ditto	English	12/0	
	Ditto	European	30/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	77/6	Per ton delivered
	Ditto	Sirapite ,,	76/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 3/2	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	4/6 5/6	Per knot
	Ditto	Weights, iron	15/0	Per cwt.
	Ditto	Ditto, lead	36/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″×10″, Welsh	530/0	Per 1,000
	Ditto	14″×9″, ditto	300/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt.
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	16/0	Per foot cube d/d
	Ditto	Moulmein	24/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″×6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	7/0	Per foot cube d/d
	Ditto	Ditto, Carpenters'	4/0	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	3*d.*	Per foot super.

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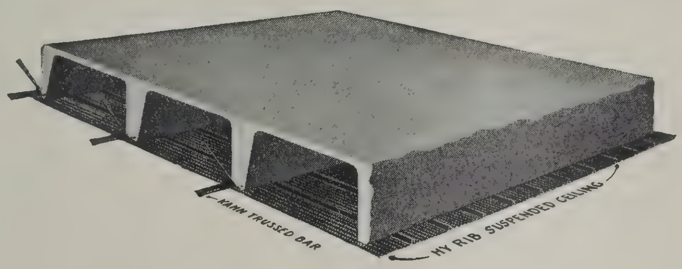

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FRIDAY, FEBRUARY 2, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than* 2 P.M. *on Wednesdays.*

CONTRACTS OPEN.

AYLESHAM.—February 5.—For alterations to west wing of institution at Aylesham, for the Guardians. Mr. H. J. Gidney, clerk, Aylesham, Norfolk.

BARRY.—February 15.—For erection and construction of shelter and shops in Hennebique ferro-concrete construction, for the Urban District Council. Deposit £2 2s. Mr. J. C. Pardoe, A.M.,Inst.C.E., surveyor, Council Offices, Barry.

BIDDULPH.—For two creosoted timber wards for 60 beds at, and also alterations to residence, Biddulph Grange, Biddulph, Staffs. Mr. E. T. Watkin, architect, Swan Chambers, Burslem.

BIRMINGHAM.—February 6.—For erection of 190 parlour-type houses on the Staplehall estate, Northfield, for the Birmingham Corporation. Contracts 118, 122 and 123. Send application and £1 deposit for each contract by February 6, to Mr. H. H. Humphries, M.Inst.C.E., Council House, Birmingham.

BLACKPOOL.—For alterations and additions to the Blackpool cricket pavilion. Mr. H. Best, M.I.Struct.E., P.A.S.I., architect, 87, Church Street, Blackpool.

BLACKPOOL.—For erection of 56 houses on the Blackpool Garden City estate, Marton. Mr. H. Best, M.I.Struct.E., P.A.S.I., architect, 87, Church Street, Blackpool.

BRIDGWATER.—February 5.—For the conversion of storeroom and alteration to teachers' room, infant department, Eastover Council School, for the Bridgwater Borough Education Authority. The Municipal Buildings (Surveyor's Department).

BRISTOL.—February 12.—For alterations to the south wall of Castle Council School, for the Education Department. Deposit £2 2s. Mr. P. Addie, The Exchange, Corn Street, Bristol.

BURY, LANCS.—February 5.—For rebuilding Holy Trinity C. of E. School. Bills of quantities will be issued for the following trades, viz. :—(Contract No. 1) excavator, concretor, bricklayer and mason ; (2) carpenter and joiner ; (3) slater ; (4) plasterer ; (5) plumber, glazier and painter. Send applications by February 5, to Messrs. Biram & Fletcher, architects, 17, George Street, St. Helens.

EASTBOURNE.—February 13.—For erection of steel roof and framing, forming superstructure to the boiler-house extension at the Electricity Works, Roselands, for the Corporation Mr. L. Roseveare, M.I.C.E., borough engineer, Town Hall, Eastbourne.

EDINBURGH.—February 7.—For the following works in connection with the erection of a block of workshop premises at Calton Road and Tolbooth Wynd, for the Town Council :—Demolition of old buildings, excavator, mason and brick works, carpenter and joiner works, plumber work, slater work, concrete work, glazier work, steel work and painter work. The Engineer and Manager, 15, Calton Hill, Edinburgh.

HOOK.—February 7.—For erection of a workmen's institute at Hook. Mr. T. W. Harcourt Roberts, Hook Colliery, near Haverfordwest.

LIVERPOOL.—February 14.—For erection of Mortuary, P.M. Room, etc., for the West Derby Guardians. Deposit £1 1s. Mr. E. B. Bailey, F.S.I., F.I.Ar., architect, 9, Cook Street, Liverpool.

LONDON.—February 5-8.—For repairs and painting to the interior of the observation and separation ward block at their Institution, St. John's Road, Upper Holloway, N., for the Guardians of St. Mary, Islington. Send applications and £2 deposit by February 5 to Mr. E. J. Harrison, L.R.I.B.A., architect, 23, Berkeley Road, Crouch End, N.8.

LONDON.—February 9.—The Commissioners of His Majesty's Works, &c., invite tenders for alterations at Acton Employment Exchange, London, W. Deposit £1 1s. H.M. Office of Works, P.O. Savings Bank, Blythe Road, West Kensington, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LONDON.—February 13.—For erection of two blocks of tenements (flats) at the Fisherton Street site, for the St. Marylebone Borough Council. (Messrs. Ashley and Newman, architects). Send application and £5 5s. deposit by February 13, to Mr. J. Wilson, town clerk, Town Hall, Marylebone Road, N.W.1.

MANCHESTER.—February 7.—For alterations for open access at the Newton Heath Branch Library, for the Libraries Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MANCHESTER.—February 7.—For erection of an engine-shed at their Bradford Road station, for the Gas Committee. Mr. W. Newbigging, consulting engineer, 5, Norfolk Street, Manchester.

NEWBIGGIN-BY-SEA.—For erection of pavilion on Moor ; floor area of 288 square feet, for the Newbiggin Cricket Club. The Secretary, 9, Matfen Terrace, Newbiggin-by-Sea.

NOTTINGHAM.—February 5.—For erection of pump-room, economiser chamber, pipe trenches and other builders' work at the City Asylum, Mapperley Hill. Deposit £1. The City Engineer's Office, Guildhall, Nottingham.

PLYMOUTH.—February 6.—For additions and alterations to goods offices at Plymouth (Millbay) Station, for the Great Western Railway Co. The Engineer at North Road, Plymouth Station.

PRITTLEWELL.—February 12.—For erection of a motor garage at the sewage disposal works, for the Southend Corporation. Deposit £3 3s. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Southend-on-Sea.

READING.—February 17.—For erection of 20 houses (the first section of scheme comprising 84 houses) on the Shinfield Road housing site, for the Housing and Town-Planning Committee. The Housing Architect, Old College Buildings, St. Laurence's Churchyard. Send £2 2s. deposit to the Borough Accountant, Valpy Street, Reading.

SHAP, WESTMORLAND.—March 1.—For alterations and additions to the Market Hall, Shap, to convert it to a memorial hall. Mr. M. Lowis, hon. secretary, Shap, Westmorland.

SHEFFIELD.—February 7.—For (1) builders' work and (2) structural steelwork required to be done in rection of garage, stores, repair shops, &c., at Bernard Road Disposal Depot, for the Health Committee. Deposit £2. Mr. F. E. P. Edwards, city architect, Town Hall, Sheffield.

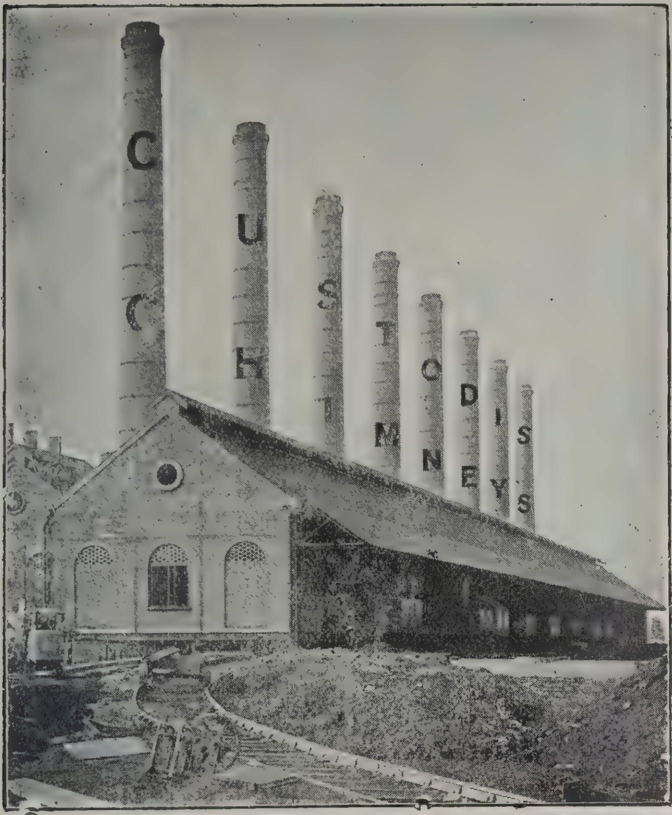
SHIPLEY.—February 12.—For erection of 16 (Class A) houses on the Crag End (No. 5) site, for the Urban District Council. Contractors may tender for the whole or for separate trades. Deposit £2 2s. Mr. H. Dawson, architect, Council Offices, Somerset House, Shipley.

STALYBRIDGE.—February 12.—For extensions to main car shed, Tame Valley, Stalybridge, for the Tramways and Electricity Board. Deposit £2 2s. Messrs. W. H. George & Son, 7, Warrington Street, Ashton-under-Lyne.

WEST BROMWICH.—February 10.—For erection of 81 houses on various sites in the borough, for the Corporation. Deposit £2. Mr. A. D. Greatorex, M.I.C.E., borough engineer and surveyor, Town Hall, West Bromwich.

WOMBWELL, YORKS.—February 12.—For erection of 20 type A houses, on a site situate in King's Road, for the Urban District Council. Deposit £2. Mr. D. H. Roberts, M.S.A., architect, Park Street, Wombwell.

WOOLWICH.—February 14.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of a telephone exchange at Woolwich. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.



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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced — In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube — To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	11/0	12/4	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced — Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	576/0	740/0	1135/0
„ „ cement mortar	596/0	760/0	1155/0

Damp course	Per Foot Super. — Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	11*d.*	1/3

Facings	Per Foot Super. — Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. — 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	10/0	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube — Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube — Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area — 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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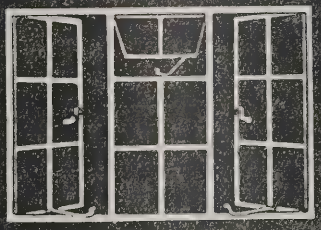

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	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	46/6	53/0	56/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
		2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/7½
Bends or shoes, each	2/1	2/7	3/3
Junctions, each	2/8	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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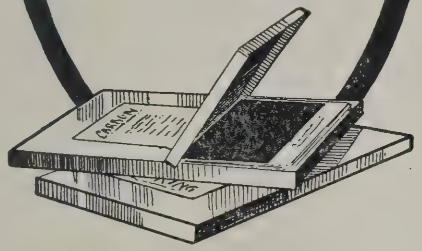

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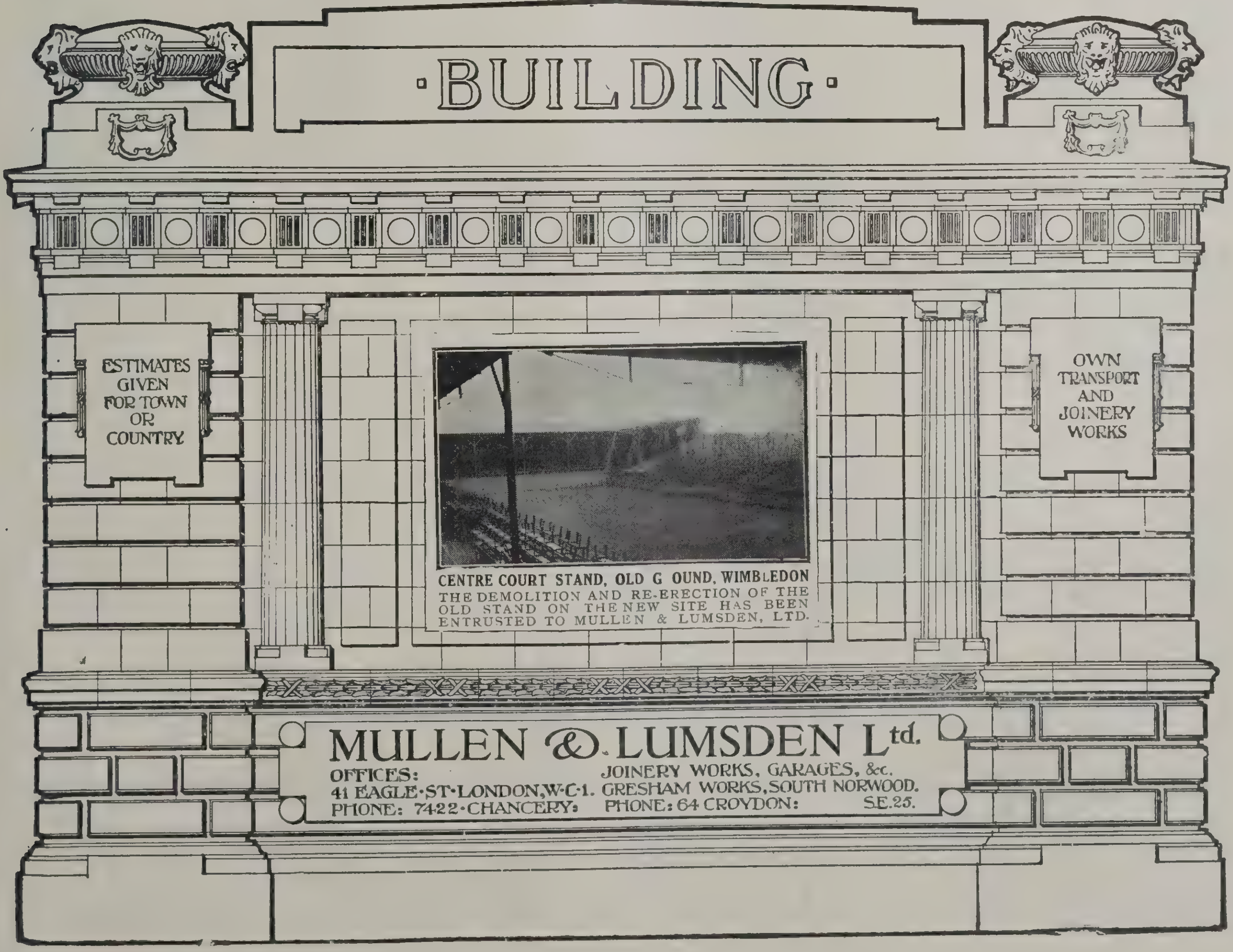

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	¼in.	⅜in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2¼	0/3¾	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster.. ..	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous.. ..	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9¼	0/10¾	0/11½	1/3½	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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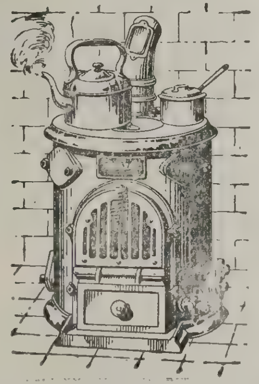

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Made in 5 sizes, in Cast Iron, Wrought Iron or Copper

SENTRY Boilers in Wrought Iron are more durable for use with hard water, and the small extra cost over Cast Iron is negligible.

IMPORTANT

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	8/6	Per yard cube d/d
	Ditto	Hardcore	4/0	
	Bricks	Blue, wirecuts	161/6	
	Ditto	Ditto, pressed	201/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	97/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	14/0	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	16/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+12½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1½″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	36/0	Per cwt.
	Ditto	Pipe	36/6	Ditto
	Ditto	Soil	39/0	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	56/6	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	76/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 3/2	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	4/6 5/6	Per knot
	Ditto	Weights, iron	15/0	Per cwt.
	Ditto	Ditto, lead	36/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	530/0	Per 1,000
	Ditto	14″ × 9″, ditto	300/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt.
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	3*d.*	Per foot super.

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FRIDAY, FEBRUARY 9, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 p.m. on Wednesdays.*

CONTRACTS OPEN.

BILLERICAY.—February 10.—For erection of a wing to the hospital and for alterations and additions to the existing hospital and nurses' home, for the Billericay Board of Guardians. (Mr. H. R. Bird, architect, St. Thomas's Gate, Brentwood.) Send applications by February 10 to Mr. O. E. Lewis, clerk to the Guardians, 27, New Road, Brentwood, Essex.

BIRMINGHAM.—February 13.—For erection of parlour and non-parlour type houses under the following contracts: 84 parlour houses at Nansen Road (Contract 116); 98 non-parlour houses at Moathouse and Fernbank Roads, Alum Rock Estate (Contract 121); and 98 non-parlour houses at Small Heath (Contract 124) for the Corporation. Send applications and £1 deposit for each contract by February 13 to Mr. H. H. Humphries, M.Inst.C.E., Council House, Birmingham.

BLACKPOOL.—February 12.—For the construction of public lavatories at "The Gynn," for the Corporation. Deposit £1. Mr. F. Wood, M.I.C.E., borough engineer and surveyor, Municipal Buildings, Town Hall Street, Blackpool.

BRADFORD.—February 13.—For erection of the following houses (Class "A") in accordance with the following conditions: Housing scheme No. 3, Bradford Moor, 132 houses; housing scheme No. 9, Bierley House estate, 30 houses; housing scheme No. 11, Swain House estate, 26 houses. (1) Contractors may tender for separate trades or for the whole of the work in all trades complete; (2) the Corporation reserve to themselves the right to accept tenders for the whole or any number of the houses; (3) the tenders shall be based upon fixed prices for labour and materials, and upon plans and specification only. The City Architect, Town Hall, Bradford.

BRIDGEND.—For additions to club house for Southerndown Golf Club. Deposit £2 2s. Messrs. Cook & Edwards, MM.S.A., architects, 22 Dunraven Place, Bridgend.

BULMER.—February 16.—For erection of a small pump house, and the laying of a short length of piping in the parish of Bulmer, for the Malton Rural District Council. Mr. J. Hutton, engineer, 1 Harcourt Place, Scarborough.

COWIE.—February 14.—For the following works in connection with erection of 20 houses at Cowie, for the Stirlingshire County Council, viz.:—Digger, brick and concrete works; drainage work; carpenter and joiner works; plumber work; slater work; plaster work. Deposit £1 1s. Mr. D. W. Glass, architect, 7, Gladstone Place, Stirling.

CREDITON.—February 26.—For erection of a teacher's house at Shirley Corner Council School, for the Devon Education Committee. The Architect's Office, Blackall Road, Exeter.

CROSS HILLS.—For alterations and extensions to the central shop premises situate in the main street, Cross Hills, for the Cross Hills Co-operative Society, Ltd. Mr. J. Hartley, architect, Skipton.

DARTFORD.—February 16.—For alterations and additions to the Board room and offices, West Hill, for the Guardians. (Mr. G. E. Burgess, M.S.A., architect, Railway Approach, Dartford.) Send application and £3 3s. deposit by February 16 to Mr. E. J. Hobbs, clerk, Guardians' Offices, West Hill, Dartford.

DUDLEY.—February 14.—For building a sanitary annexe and making other sanitary accommodation at the Poor Law Institution for the Guardians. Deposit £1 1s. Mr. A. H. Dickinson, M.S.A., architect, Priory Street, Dudley.

GLAMORGAN.—February 13.—For the following works, subject to their usual general conditions, for the Glamorgan Education Authority:—(1) Caerau Council School: Erection of new department for 352 girls; (2) Garnswllt Council School, near Pantyffynon: Erection of retaining wall and execution of sundry repairs; (3) Abercregan Council School, near Cymmer, Port Talbot: Erection of retaining walls and levelling of parts of playground; (4) Seven Sisters Council School: Building new buttresses, rebuilding boundary wall and other work. Mr. H. D. Rowland, assistant secretary of Education Committee, County Hall, Cardiff.

GRIMSBY.—February 14.—The Parks Committee invite tenders for the following:—(*a*) Construction of brick shelters, tennis pavilion, conveniences for both sexes, &c.; (*b*) about 240 lineal yards of unclimbable iron fencing. Mr. H. G. Whyatt, M.I.C.E., borough engineer, 170 Victoria Street.

HALIFAX.—February 17.—For the following trades in connection with extensions to stables at Stoney Road Depot, for the Transport Committee, viz.:—Mason, carpenter and joiner, plumber and glazier, slater, reinforced concrete work, steelwork, painter and electric lighting. Deposit £2 2s. Mr. A. C. Tipple, borough engineer, Crossley Street, Halifax.

HALIFAX.—February 23.—For the various works required in erection of bungalow and garage, &c., on the Well Head estate, Heath Road. Mr. M. Hall, architect, 1 Harrison Road, Halifax.

KETTERING.—February 12.—For erection of offices, showroom and stores, Rockingham Road, for the Urban District Council. Send application by February 12 to Mr. J. Bond, clerk, Council Offices, Kettering.

KIRKCALDY.—February 17.—For the excavator and brick, joiner, slater, plumber, plaster and glazier works of 28 houses to be erected on the Hendry Road site, for the Town Council. Deposit £1 1s. Mr. W. B. Wyllie, A.R.I.B.A., architect, High Street, Kirkcaldy, or Mr. J. Gentles, F.F.S., surveyor, 184 High Street, Kirkcaldy.

LEAMINGTON.—February 12.—For the conversion of the existing third-class baths into a Plombiere suite, &c., for the Corporation. Mr. A. J. Taylor, F.S.A., architect, Bath, The Borough Surveyor's Office, Town Hall, Leamington.

MANCHESTER.—February 14.—For renewing lantern over first-class swimming bath at New Islington Baths, for the Corporation. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MANCHESTER.—February 20.—For alterations for open access at the Cheetham Branch Library, and alterations and new furniture at Openshaw Branch Library, for the Libraries Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MILNROW.—February 19.—For erection of an electricity transforming station and public sanitary conveniences in Edmund Street, Milnrow, for the Urban District Council. The Surveyor, Council Offices, Milnrow.

MIRFIELD, YORKS.—February 13.—For the various works required in erection of a shed at Butt End Mill, Mirfield. Messrs. Kirk, Sons & Ridgway, F.R.I.B.A., architects and surveyors, Market Place, Dewsbury.

OXFORD.—February 19.—For repairs to Blackbird Leys Farm, for the Oxford Corporation. The City Engineer, Town Hall.

PORTSOY.—February 17.—For mason, carpenter, slater, plaster, plumber, glazier, steel and heating works required in converting the East United Free Church, Portsoy, into a hall with relative offices, for the Town Council. Messrs. D. & J. R. MacMillan, architects, 105 Crown Street, Aberdeen.

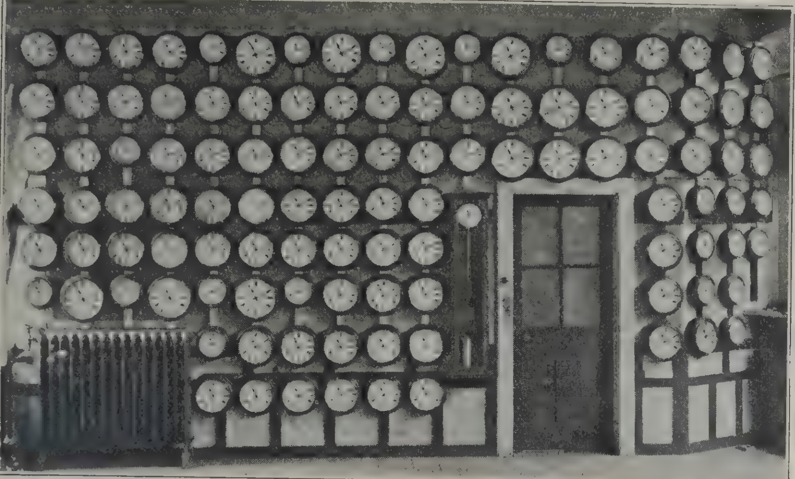
ST. HELENS.—February 14.—For erection and completion of 20 houses on the Windlehurst estate for the Town Council. Contractors may tender for one or more pairs. The tenders will be lump-sum tenders. Send application by February 14 to the Chairman of the St. Helens Panel of Architects, Mr. F. S. Biram, 17, George Street, St. Helens.

SOUTHEND-ON-SEA.—February 19.—For supply of materials for and erection of men's and women's conveniences on the pier outer head, for the Corporation. Deposit £2. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Clarence Road, Southend-on-Sea.

STAINCLIFFE.—February 12.—For the various works required in additions to Longfield House, Staincliffe. Messrs. Firth, Son & Blackburn, A.R.I.B.A., architects, 22 Wellington Road, Dewsbury.

TRANENT.—February 17.—For the following trades required in erection of 10 houses at the housing scheme, section No. 4, for the Town Council:—Mason and brick, carpenter and joiner, plumber, slater and roughcast, plaster, glazier, roads and footpaths, main sewers. Messrs. Morham & Brotchie, F.F.S., surveyors, 29 Hanover Street, Edinburgh.

WALSOKEN.—February 23.—For alterations and additions to Popenhoe Farm House, Walsoken, for the Norfolk Small Holdings Committee. Deposit £1 1s. The County Land Agent, The Shirehouse, Norwich.



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CHEMICAL HAND FIRE EXTINGUISHER

helps towards this end, as its instantaneous action and absolute reliability reduce damage to the minimum.

"MINIMAX"
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Full particulars from

MINIMAX LTD.

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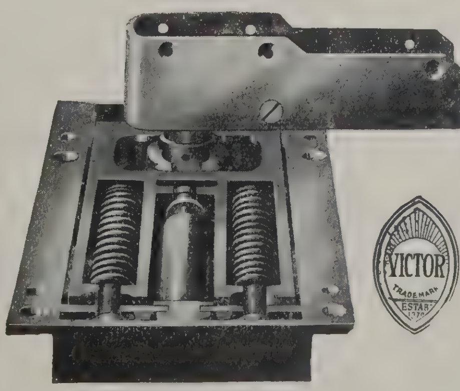
ROBERT ADAMS

"VICTOR"
Door Springs
and Checks

The **"Victor" Door Springs** and Hinges are by general consent admitted to be the most durable and reliable for all kinds of doors.

The New Shallow "Victor" Double-Action Spring Hinge. Total Depth 1⅜ in.



Used throughout the New London County Hall.

All kinds of FITTINGS of QUALITY for Doors and Windows.

3 & 5 EMERALD ST.,
LONDON · W.C.1

Telephones ... {829 CENTRAL / 5512 MUSEUM}

CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced: In small quantities	Per Ft. Super reduced: In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube: To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	11/0	12/4	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced: Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	576/0	740/0	1135/0
„ „ cement mortar	596/0	760/0	1155/0

Damp course	Per Foot Super.: Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	11*d.*	1/3

Facings	Per Foot Super.: Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.: 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	10/0	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube: Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube: Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

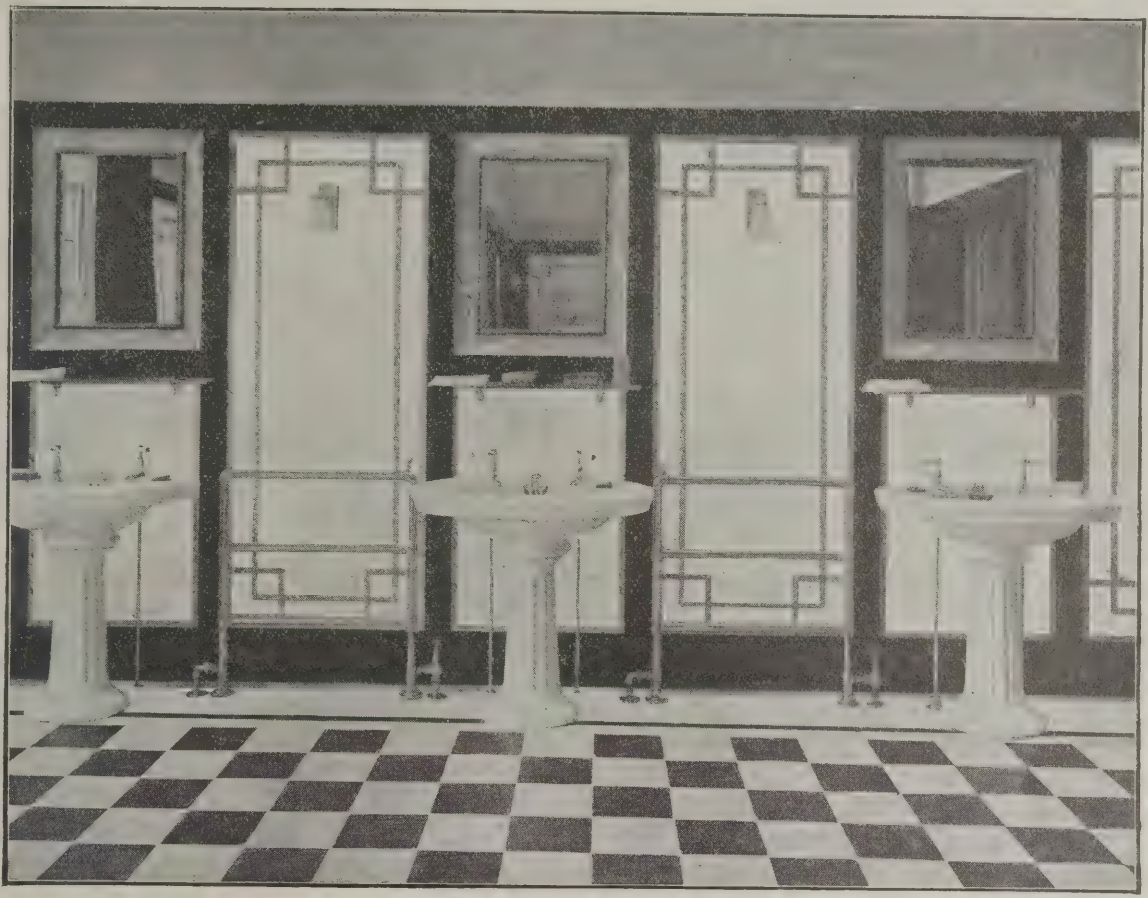
Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area: 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.



Lavatory
Nobel House, Westminrter, S.W.

Architects: Messrs. BUCKLAND & HAYWOOD, FF.R.I.B.A., and
J. N. RANDALL VINING, Esq., F.R.I.B.A.

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"Better than Marble"

It is to-day expected of the architect that he should satisfy the utmost demands of hygiene without in any way sacrificing artistic effect. This dual objective is strikingly achieved in the lavatory here illustrated by the use of Vitrolite—black and white.

The walls are lined with White Vitrolite panels inlaid with grey marble mouldings, surrounded by highly polished Black Vitrolite capping, skirting and stiles.

Vitrolite has a brilliant fire polished snow-white or jet black surface, and is cast in sheets up to 10 ft. by 3 ft. in thicknesses of $\frac{1}{4}$" to 1". It can be cut, drilled, bent, and the edges bevelled and polished. It is non-absorbent and impervious to acids.

VITROLITE CONSTRUCTION Co. (Europe) Ld.,
1, Victoria Street, Westminster, London, S.W.1
Telephone: Victoria 9777

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt. Soakers	Flats	Flashings and Gutters
Milled lead and laying	47/6	54/0	57/0

Per Foot Run Copper Nailing	Soldered Angle	Welted Joint	Each Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run 2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Above 1st Floor	
Rolled steel joists	15/6	17/6	
Compound girders	19/0	21/0	
Stanchions	21/0	23/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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The successful architect is he who strives to give his clients better service every day. For instance, he finds it enhances his reputation to specify the materials and products which he knows to be the best for their particular class of work. That is why architects and builders, when dealing with Iron and Steel Structures,

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EXPANDED METAL PERFECTION "C" LATHING

Standard Sheets, 9 ft. by 2 ft. and in Gauges—22—24—26.

The diamond mesh of "C" Lathing forms a perfect key for the plaster, and owing to its uniform flexibility is suitable for both flat and curved surfaces.

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ECCLESIASTICAL & ARCHITECTURAL SCULPTORS,
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MARBLE. ALABASTER.
GRANITE. STONE.
WOOD. METAL.

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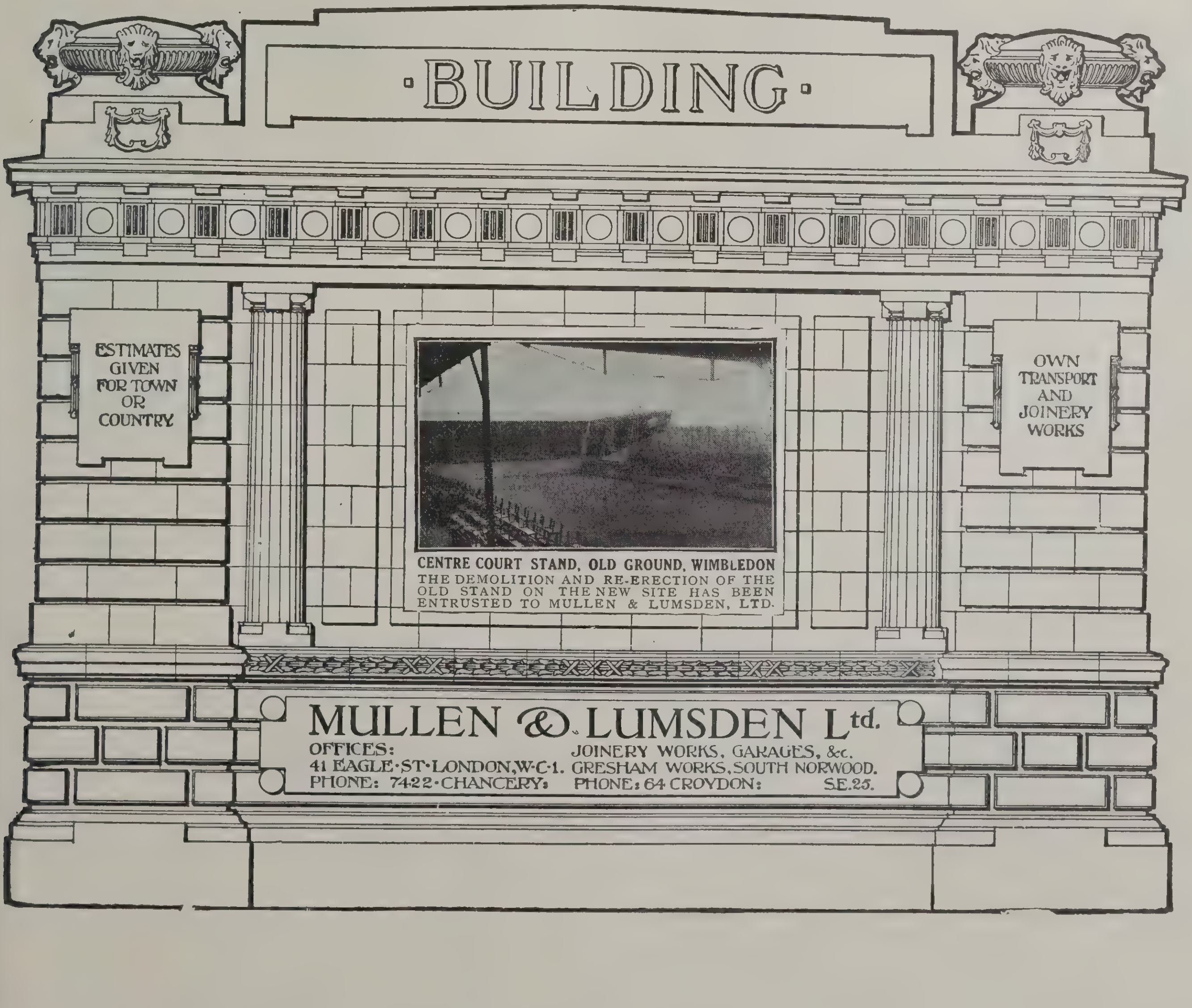

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1¾	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2¾	0/3¾	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10½	0/8½	1/0½	0/9½	0/10½	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	Size *Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

Austin's Plaited Goliath Sash Line. Copper Wire Centre, No. 6. Actual size.

PATENT PLAITED SASH LINES and BLIND CORDS

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well-known

Anchor Brand

(MADE IN SEVEN QUALITIES.)

They have stood the test for over 100 years.

TRADE MARK. ANCHOR REGD Nos 26648 & 47412.

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Patent Anchor Extra Fine Twine Sash Line (Blue Label), No. 6. Actual size.

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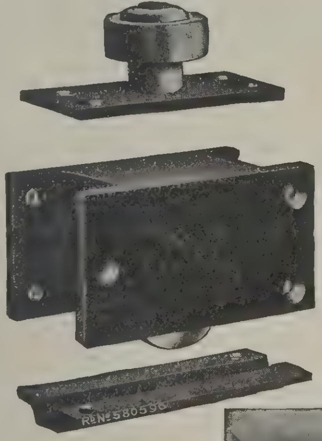

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These rollers work on ball-bearings. Smooth running and ease in manipulation is ensured.

Prices quoted on receipt of particulars of partitions to be fitted.

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Architects desirous of advice on any question relating to the installation of Safes, Strong Rooms or Doors are invited to consult the Technical Department of the Firm with the assurance that they need feel under no obligation.

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	Add 1d. to Mechanic's Rate
1916–July	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0½	11½d.		
1918–Jan. 11	1/3½+12½%	1/0½+12½%	11½+12½%	Plumber	Add ½d. to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	Add ½d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	Add 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

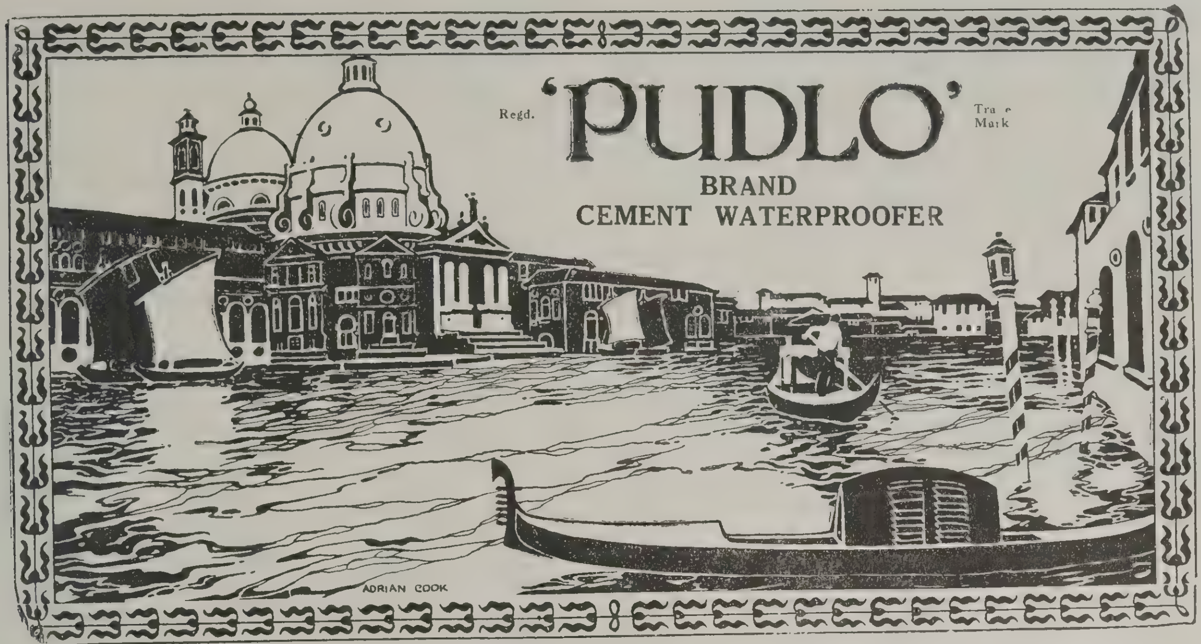
All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	8/6	Per yard cube d/d
	Ditto	Hardcore	4/0	
	Bricks	Blue, wirecuts	161/6	
	Ditto	Ditto, pressed	201/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	97/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	14/0	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	16/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+12½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝d.	
	Ditto	Ditto 21 oz.	5½d.	
	Ditto	Ditto 26 oz.	6⅞d.	
	Ditto	Rough cast ⅛"	6½d.	
	Ditto	Wired, cast	10½d.	
	Ditto	Figured, rolled	8d.	
	Ditto	Flemish or Arctic	8d.	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	37/0	Per cwt.
	Ditto	Pipe	37/6	Ditto
	Ditto	Soil	40/0	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	56/6	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite	76/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	4/6 5/6	Per knot
	Ditto	Weights, iron	15/0	Per cwt.
	Ditto	Ditto, lead	36/0	Ditto
	Size	Best	5/6	Per fkn
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	300/0	Ditto
	Soil pipes	L.C.C., iron, 4"	4/4	Per yard
	Solder	Plumbers'	8½d.	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5d. 6d.	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	3d.	Per foot super



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FRIDAY, FEBRUARY 16, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

CONTRACTS OPEN.

AYLESBURY.—For additions and alterations to the laundry at the Union House, for the Guardians. Deposit £2 2s. Mr. F. Taylor, architect, 7, Bourbon Street, Aylesbury.

BELMONT.—February 21.—For erection and completion of two cottages at Belmont, near Bolton, for the Bolton Waterworks Department. The Waterworks Engineer's Office, St. George's Street, Bolton.

BRIGHOUSE.—February 21.—For the masons', joiners', plumbers' and glaziers', plasterers', slaters' and painters' works in the erection of 12 type "B" houses at Smith House Lane. Send application by February 21 to Mr. P. T. Grove, town clerk, Municipal Offices, Brighouse.

CANTERBURY.—February 26.—For extension to infirmary of Guardians' Institution, Nunnery Fields, for the Guardians. Deposit £2 2s. Mr. H. Ashenden, 29, Westgate, Canterbury.

CARDIFF.—February 19.—For alterations in the conversion of the Court Farm Buildings, Llandaff Fields, into tearooms and dressing-rooms, &c., for the Corporation. Deposit £2 2s. The City Architect's Office, City Hall, Cardiff.

CROSS KEYS, MON.—February 20.—For the reconstruction of the Artillery Drill Hall, at Cross Keys, occupied by the 330th Battery, 83rd Welsh Brigade, R.F.A., for the Monmouthshire Territorial Army Association. Deposit £2 2s. Messrs. Habershon and Fawckner, F.R.I.B.A., architects, 41, High Street, Newport, Mon.

CRUMLIN, MON.—For erection and completion of Scheme 1 of the Crumlin Navigation Workmen's Institute and Hall, for the Trustees of the Crumlin Workmen's Institute Funds. The work includes the erection of four lock-up shops, bank, garage, and institute containing lending library, reading-rooms, committee-rooms, billiard-room and caretakers' quarters. Send application and £2 2s. deposit to Mr. H. Gabe Jones, architect and surveyor, Bank Chambers, Hengoed.

DOLGELLEY.—February 23.—For alterations to Bryncemlyn, near Dolgelley, for Mr. R. Beevor. Mr. F. Howarth, L.R.I.B.A., architect and surveyor, Towyn and Barmouth.

EDINBURGH.—February 19.—For the following for the Town Council, viz. : (1) Mason, joiner, plumber and plaster work (in one undertaking) of proposed extension of switch-house, M'Donald Road power station. Mr. J. A. Williamson, A.R.I.B.A., city architect, City Chambers, Edinburgh.

FELTHAM.—February 19.—For erection of a motor shed at Fern Grove depot, for the Feltham Urban District Council. The Surveyor's Office, Council Offices, High Street, Feltham, Middlesex.

FERRYSIDE.—February 24.—For converting existing Y.M.C.A. building at Ferryside into dwelling house. Mr. S. E. Bowser, architect, Bedford House, Derwent Street, Llanelly.

GLASGOW.—February 20.—For the following works required in erection of four double and four single shops at Kennyhill and Riddrie, for the Corporation, viz. : (1) Excavator, brick and mason works ; (2) carpenter and joiner works ; (3) slater, etc., works ; (4) plumber work ; (5) plaster work ; and (6) glazier work. Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

GOVAN.—February 24.—For the following works required in connection with extension of Elder Library, Govan, for the Glasgow Corporation, viz. :—(1) Digger, mason and brick works ; (2) carpenter and joiner works ; (3) slater work ; (4) plumber work ; and (5) plaster work. Deposit £2 2s. The Office of Public Works, 64, Cochrane Street, Glasgow.

HALIFAX.—February 19.—For the necessary masons' work required in the extension of their sub-station at Warley Grove, High Road Well, for the Electricity Committee. The Borough Engineer, Crossley Street, Halifax.

HORSHAM.—February 28.—For the demolition of existing cottage and erection of one pair of new cottages on same site at the sewage pumping station, for the Urban District Council. Deposit £2 2s. Mr. C. G. Atkinson, surveyor, 3, Market Square, Horsham.

HYTHE.—February 22.—For the conversion of the baths, construction of new shelters, etc., for the Town Council. Send application and £2 2s. deposit by February 22, to Messrs. Bromley and Dahl, F.R.I.B.A., Radnor Chambers, Folkestone.

INGATESTONE.—February 22.—For repairs and painting at their waterworks pumping station, Fryerning Lane, Ingatestone, for the Chelmsford Town Council. Mr. J. Dewhirst, A.M.I.M.E., engineer, Waterloo Lane, Chelmsford.

KIRKCUDBRIGHT.—February 23.—For the following works in connection with the erection of four blocks of two houses each on the Milburn Street site, for the Town Council, viz.: (1) Digger, brick and concrete work ; (2) carpenter and joiner work ; (3) slater and roughcasting work ; (4) plumber and gasfitter work ; (5) plaster work ; (6) glazier work. Deposit £1 1s. for each schedule. Mr. W. A. M'Kinnell, architect, Town Hall, Kirkcudbright, and the Sheiling, Maxwelltown, Dumfries.

LIGHTCLIFFE.—For the various works in building a pair of semi-detached houses, Lightcliffe. Mr. H. E. Hinchliffe, architect, 45a, New Crown Street, Halifax.

LONDON.—February 28.—For erection of 12 lock-up shops, with flats over, in Forest Road, Walthamstow, for the Urban District Council. Mr. G. W. Holmes, A.M.I.C.E., engineer and surveyor, Town Hall Annexe, Walthamstow, E.17.

LONG EATON.—February 23.—For erection of 24 parlour and non-parlour houses, for the Urban District Council. Deposit £5 5s. Mr. H. Raven, C.E., architect, The Hall, Long Eaton.

MANCHESTER.—February 23.—For erection of bandstand at Platt Fields, for the Corporation. Deposit 10s. 6d. The City Architect, Town Hall, Manchester.

NEWCASTLE-UPON-TYNE.—February 27.—For erection of 384 flats in three-storey block dwellings at Rochester Street, Walker, for the Corporation. The work will be divided in three sections, as follows : (a) 204 dwellings ; (b) 180 dwellings ; (c) boundary walls, pavings and other outside works. (2) Contractors may tender for separate trades, or for the whole of the work in all trades complete, but the price for each trade must be stated separately. Separate bills of quantities will be issued for each trade in sections (a) and (b), and for all trades together in section. Deposit £2 2s. The Housing Architect, 18, Cloth Market, Newcastle-upon-Tyne.

NORTHFIELD.—February 20.—For rebuilding of boundary wall and entrances at "The Woodlands," Bristol Road, for the Birmingham Corporation. Deposit £1. Mr. H. H. Humphries, M.I.C.E., city engineer and surveyor, Council House, Birmingham.

PEASEMORE, BERKS.—February 28.—For erection of a memorial chapel at Peasemore, for the Trustees of the Primitive Methodist Church. Mr. W. H. Bell, architect, Market Place, Newbury.

PORTSMOUTH.—February 21.—For alterations at the mortuary and post mortem room, for the Corporation. Mr. A. W. Ward, borough engineer, Town Hall, Portsmouth.

SHAP, WESTMORLAND.—March 1.—For alterations and additions to the Market Hall, Shap, to convert it to a memorial hall. Mr. M. Lowis, hon. secretary, Shap, Westmorland.

SOWERBY BRIDGE.—February 26.—For the various works required in the erection of bowling pavilion, etc., at Allan House, for the Urban District Council. Mr. J. Eastwood, A.M.I.C.E., surveyor, Council Offices, Sowerby Bridge.

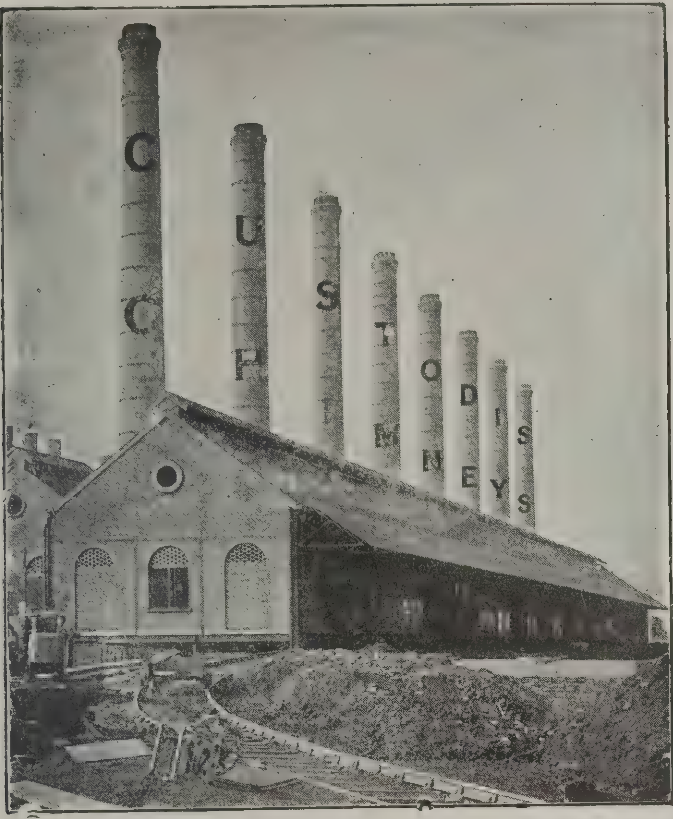
STOKE-ON-TRENT.—February 19.—For interior reconstruction of ladies' private baths at the Hanley Public Baths, for the Corporation. Deposit £1. The Borough Surveyor, Town Hall, Stoke-on-Trent.

SURBITON.—February 19.—For the completion of six houses at Surbiton Hill, which have been partially erected, for the Surbiton Urban District Council. Deposit £1 1s. Mr. F. W. Wood, clerk, Ewell Road, Surbiton.

TILBURY.—February 26.—For erection of public offices in Tilbury, for the Urban District Council. Deposit £2 2s. Mr. A. W. Buckner, clerk, Council Offices, Tilbury.

WELWYN.—February 28.—For erection of 93 cottages in the parish of the Garden City, for the Welwyn Rural District Council. Deposit £2 2s. Mr. L. de Soissons, architect, Estate Office, Welwyn Garden City.

WREXHAM.—February 24.—For the execution of alterations and additions to No. 1, Milton Villas, Grosvenor Road, for Mrs. R. Wallis. Mr. J. H. Swainson, A.M.I.C.E., architect and surveyor, 1, Hill Street, Wrexham.



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CURRENT LONDON PRICES.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10s. per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1s.
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	50/0
Sleeper roadways	9/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6d.	2d.
Add, if in *very* small quantities not exceeding 21 ft.	3d.	
Add for filling baskets with *debris* and running same out to carts	1½d.	1½d.
Add if *debris* has to be raised or lowered to ground level	2d.	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½d.	2½d.

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	11/0	12/4	8d.
Planking and strutting	4d. per foot super.		
Planking, strutting and shoring	1/0	„	„

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	576/0	740/0	1135/0
„ „ cement mortar	596/0	760/0	1155/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10d.	1/3
¾-in. asphalte	10d.	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5s. additional cost of the facing bricks over the common brick basis	½d.	½d. plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½d.
Flat joint in cement (struck) and lime whiting		1½d.

ARCHES.

Extra over common brickwork	Per Ft. Super.
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1d.
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5s. per thousand additional cost of bricks over the common basis price	½d. plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½d.	3¾d.	4d.	4½d.
Add for each side bead butt	4d.	4d.	4½d.	5d.

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9d.

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

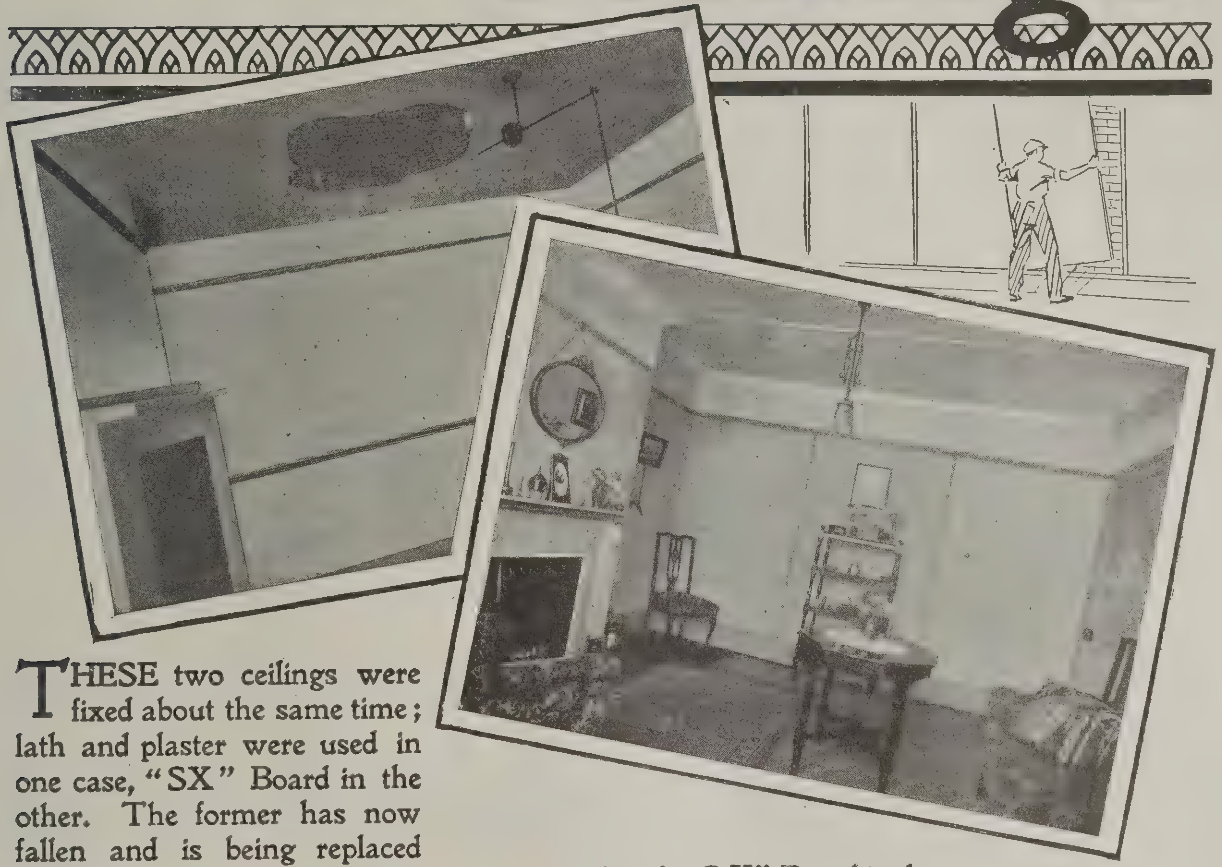
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½d.	3½d.	5d.	6½d.	9d.	11½d.	1/1	1/2
Deal, wrot fixed and moulded	2¾d.	4d.	5½d.	7d.	10d.	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7d.	8½d.	11d.	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Compare these Ceilings



THESE two ceilings were fixed about the same time; lath and plaster were used in one case, "SX" Board in the other. The former has now fallen and is being replaced with "SX" Board, but the ceiling constructed with "S.X" Board in the first instance is as good as—perhaps better than—when first put up.

The use of "SX" Board ensures lasting ceilings, ceilings which will not be affected by vibration and will not crack or fall. "SX" Board is therefore an economy in ceiling construction because it saves the cost of renewal or repair.

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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
Barrel	Flush	Sash	Locks and Furniture			Casement		Grip	Spring
Bolts	Bolts	Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Handles	Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	47/6	54/0	57/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/3	5*d.*	9*d.*	5/6	2/3

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints .. .	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

	Per Foot Run	
Iron (L.C.C.) pipes	2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints	2/0	3/0
Extra for bends .. .. each	7/5	11/2
Extra for junctions .. .. each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Per Square Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	1/5	1/8
Add for copper nails	3/3	3/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Per Cwt. Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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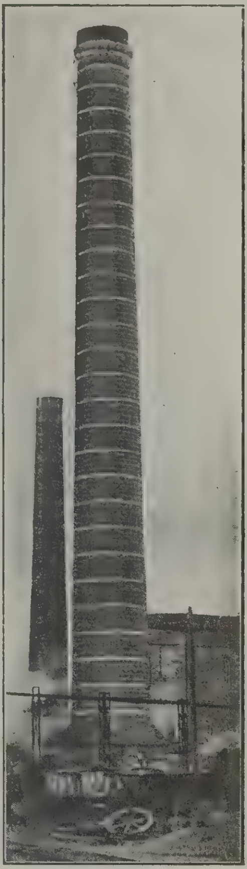

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Built in 1917 for the Workington Iron & Steel Co. Ltd.

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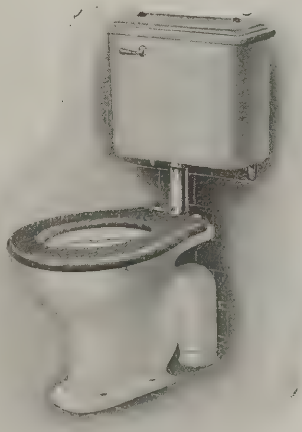

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CHARLTON, LONDON, S.E.

As permanent as the Pyramids.

CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10½	0/8½	1/0½	0/9½	0/10½	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super: Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	Size *Twice*	Per Yard Super: Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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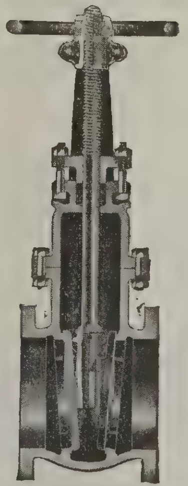

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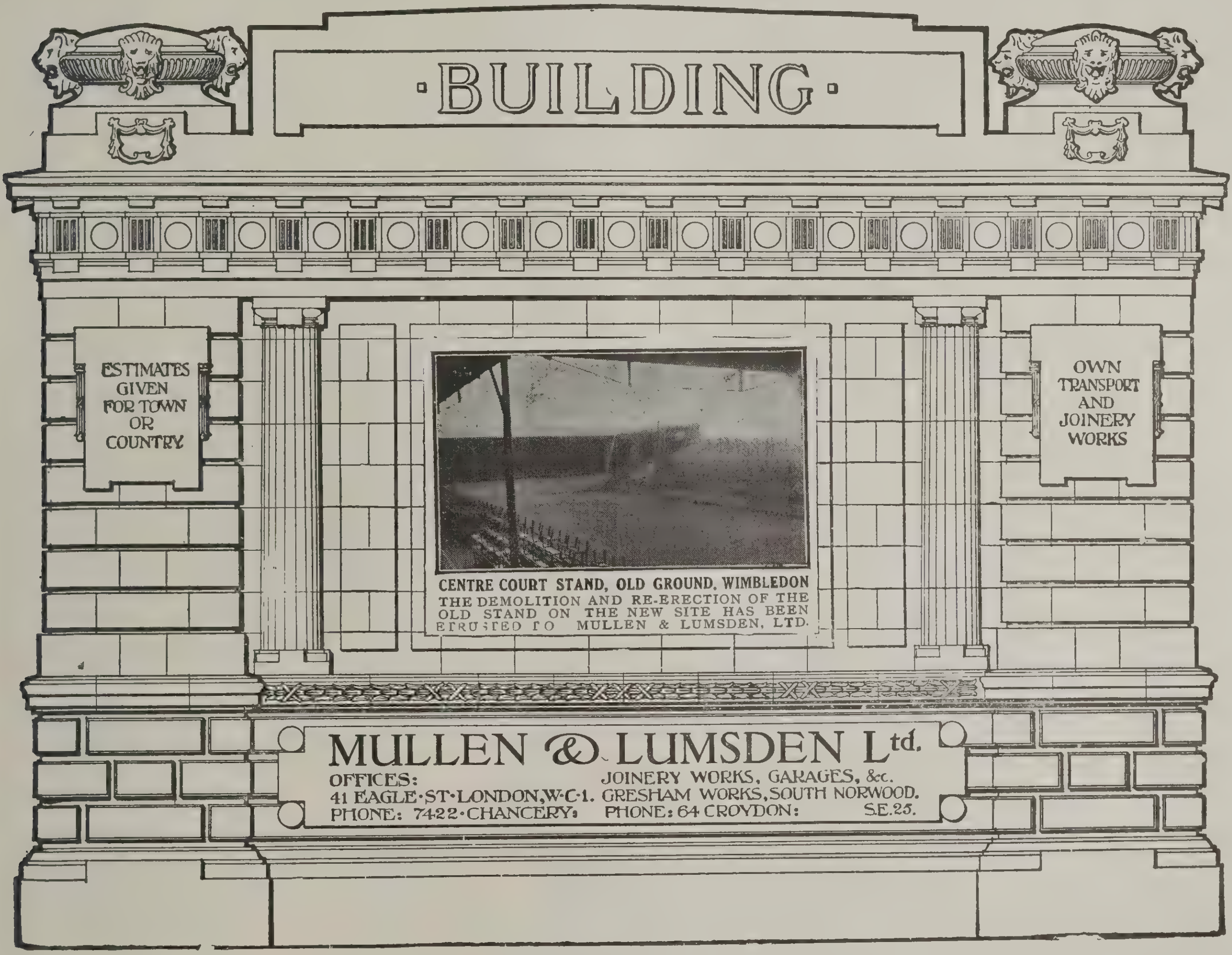

·BUILDING·

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* ½*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	8/6	Per yard cube d/d
	Ditto	Hardcore	4/0	
	Bricks	Blue, wirecuts	161/6	
	Ditto	Ditto, pressed	201/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	97/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	14/0	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	16/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+12½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼"	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	37/0	Per cwt.
	Ditto	Pipe	37/6	Ditto
	Ditto	Soil	40/0	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	56/6	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. v	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	76/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	4/6 5/6	Per knot
	Ditto	Weights, iron	15/0	Per cwt.
	Ditto	Ditto, lead	36/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	300/0	Ditto
	Soil pipes	L.C.C., iron, 4"	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt.
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	3*d.*	Per foot super.

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A. Marshall Mackenzie & Son, FF.R.I.B.A.
Architects.

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THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

FRIDAY, FEBRUARY 23, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ABERDEEN.—February 28.—For reconstruction and enlargement of Peterhead Academy, for the Aberdeenshire Education Authority, viz. :—Plaster and cement works, plumber work, and glazier and painter works. Mr. J. A. Ogg Allen, F.R.I.B.A., 25 Union Terrace, Aberdeen.

BENSHAM.—March 5.—For conversion of sheds into children's playroom, bathroom, etc., at the Workhouse, for the Gateshead Guardians. Send application by February 24 to Messrs. Newcombe and Newcombe, architects, 23 Eldon Square, Newcastle-on-Tyne.

BURTON POINT.—March 3.—For erection of a range warden's quarters at the Sealand rifle range, near Burton Point, Cheshire, for the Flintshire Territorial Army Association. Messrs. J. H. Davies and Sons, architects, 14 Newgate Street, Chester.

CHESTERFIELD.—February 27–March 10.—For erection of a lodge at the Walton Sanatorium, for the Derbyshire County Council. Deposit £1 1s. Mr. P. B. Houfton, M.S.A., architect, Furnival Chambers, Chesterfield.

COEDPOETH.—March 1.—For erection of a drill hall at Coedpoeth, for the Denbighshire T.A. Association. Mr. Goronwy Griffith, O.B.E., architect, Denbigh.

DEWSBURY.—March 8.—For masons', joiners', plumbers' and heating engineers', plasterers', slaters', painters' and electricians' work in new imbecile block, for the Dewsbury Union. Messrs. W. Hanstock and Sons, architects, Branch Road, Batley.

EARLSHEATON.—March 6.—For the various works required in the erection of two semi-detached houses, Earlsheaton, Yorks. Messrs. Kirk, Sons and Ridgway, F.R.I.B.A., architects and surveyors, Market Place, Dewsbury.

GOWERTON.—March 1.—For erection at Mount Street site, Gowerton, of five blocks of two houses of "A" type, and five blocks of two houses "B" type, for the Swansea Rural District Council. Deposit £2 2s. Mr. J. Teifion J. Williams, M.S.A. (the Council's housing architect), 3 Temple Buildings, Goat Street, Swansea.

GREENWICH.—March 1.—For making sundry alterations at the West Greenwich Relief Office, Royal Hill, for the Guardians. Deposit £2 2s. Mr. L. Jacob, Guardians' surveyor, 39 Bloomsbury Square, W.C.1.

HAMILTON.—February 26.—For all or any of the following works for the erection of houses on the Low-Water housing site, for the Town Council, viz. :—Brick, &c., works ; carpenter, joiner and ironmongery works ; slater work and roughcasting ; plumber and gasfitter works ; plaster work and concrete floors ; and glazier work. Send application by February 26 to Mr. P. M. Kirkpatrick, town clerk, Hamilton.

HEATON.—February 27.—For the mason's, joiner's, slater's, plumber's, plasterer's, painter's and heating engineer's work required in erection of St. Barnabas Hall, Rossefield Road, Heaton, Bradford. The Estate Office, Saltaire, Yorks.

HEREFORD.—March 2.—For the renovation and repair of the following Council and voluntary schools in the county of Hereford, for the County Education Committee, viz. :—Abbeydore, Aymestry Leinthall Earles, Almeley Ashperton and Canon Frome, Bishops Frome, Brinsop, Brilley, Castle Frome, Cusop, Eardisley Church of England, Eardisley Great Oak, Foy, Lower Bullingham, Letton, Mansel Lacy, Much Cowarne, Putley, St. Weonards, Stretton Sugwas, Tretire with Michaelchurch, Ullingswick, and Walford. Mr. G. H. Jack, M.I.C.E., F.S.I., county surveyor and architect, High Town, Hereford.

LEIGH-ON-SEA.—March 12.—For erection and completion of a block of 16 flats at East Street, Leigh-on-Sea, for the Corporation of Southend-on-Sea. Send application and £3 3s. deposit by February 24 to Mr. R. H. Dyer, borough engineer, Municipal Buildings, Southend-on-Sea.

LIGHTCLIFFE.—For the various works in building a pair of semi-detached houses, Lightcliffe. Mr. H. E. Hinchliffe, architect, 3 Fountain Street, Halifax.

LITHERLAND.—March 5.—For erection of 50 houses on the Moss Lane housing site, for the Urban District Council. Mr. G. Ponsford, M.I.M. and C.E., engineer and surveyor, Council Offices, Sefton Road, Litherland.

LLANHARRAN.—February 26.—For erection of fifty semi-detached houses, namely, twenty-six A-type and twenty-four B-type, on their site at Llanharran, for the Cowbridge Rural District Council. Mr. E. Loveluck, A.R.I.B.A., Council's architect, 12 Dunraven Place, Bridgend.

LONDON.—February 23.—For the building work required to complete a fitters' shop at the waterworks yard, Surrey Street, for the Croydon Town Council. Deposit £1. The Borough Engineer's Office, Town Hall, Croydon.

LONDON.—March 7.—For demolition of old and erection of new laundry, coal bunker, yard paving, drainage, and other works at their Central Institution, Sidney Road, Homerton, E.9, for the Guardians of Hackney Union (Messrs. Finch, Gunn and Finch, architects, 18, London Street, Paddington, W.2). Send applications and £5 deposit to Mr. F. R. Coles, clerk, Sidney Road, Homerton, E.9.

MANCHESTER.—February 26.—For relining swimming bath at Gorton Baths, for the Corporation. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MANCHESTER.—March 7.—For works required in the completion of Orford Street Municipal School, Cheetham, each section to be let separately, as follows :—(1) Excavator, drainer, concreter, and bricklayer ; (2) stonemason ; (3) carpenter and joiner ; (4) plumber and glazier ; (5) plasterer and painter, for the Education Committee. Deposit £1 1s. Education Offices, Deansgate, Manchester.

MURSLEY, ETC.—March 3.—The Bucks Agricultural Committee invite tenders for the following works, viz. : Salden Crabtree Farm, Mursley (one new dairy cottage), and Littlecote Farm, Stewkly (one new dairy cottage). Mr. G. M. Odam, county land agent, 21, Walton Street, Aylesbury.

OXFORD.—March 3.—For erection of the following houses :—Iffley Road site, 65 ; and Abingdon Road site, 96, for the Corporation. Deposit £5. Mr. J. E. Wilkes, A.M.I.C.E., city engineer, Town Hall, Oxford,

SALFORD.—February 26.—For (*a*) new offices, Municipal Secondary School for Girls ; and (*b*) electric light installation, Grecian Street Boys' School, for the Education Committee. The Secretary, Education Committee, Chapel Street, Salford.

SHANKLIN.—February 27.—The Urban District Council invite tenders for (1) erection by contract of a sports and refreshment pavilion, with shelter adjoining ; also (2) erection of public lavatories and shelter in the Esplanade Gardens. Mr. E. C. Cooper, engineer and surveyor, Council Chambers, Shanklin, I.W.

SHEFFIELD.—February 26.—For erection of Council schools at (1) Phillimore Road, Darnall ; and (2) Bolsover Hill, Barnsley Road, for the Education Committee. Deposit £2 for each school. Mr. F. E. P. Edwards, F.R.I.B.A., city architect, Town Hall, Sheffield.

SHEFFIELD.—February 28.—For supply of materials and works in connection with the lining of existing steel coal bunkers for boilers 20 and 23 at Neepsend generating station, for the Electric Supply Committee. Deposit £1 1s. Mr. S. E. Fedden, M.I.C.E., general manager and engineer, Commercial Street, Sheffield.

WAKEFIELD.—February 28.—For the whole of the works in connection with the alteration of lavatories in the Town Hall, for the Town Council. The City Surveyor's Office, Town Hall, Wakefield.

WATFORD.—March 13.—For erection of an extension to the Ward Block at their Infirmary in Vicarage Road, Watford, Herts, for the Guardians. Send applications and £5 deposit by March 2 to Messrs. A. Saxon Snell and Phillips, architects, 9 Bentinck Street, Manchester Square, W.1.

WIGAN.—March 3.—For the extension of headquarters of the Fifth Battalion Manchester Regiment, Church Street. Deposit £1 1s. The surveyor, East Lancashire Association T.A., Town Hall Chambers, 52 Warrington Street, Ashton-under-Lyne.

WORTHING.—March 15.—For the construction and supply of six timber-framed beach cabins, for the Town Council. Borough Surveyor, Municipal Offices, Worthing.

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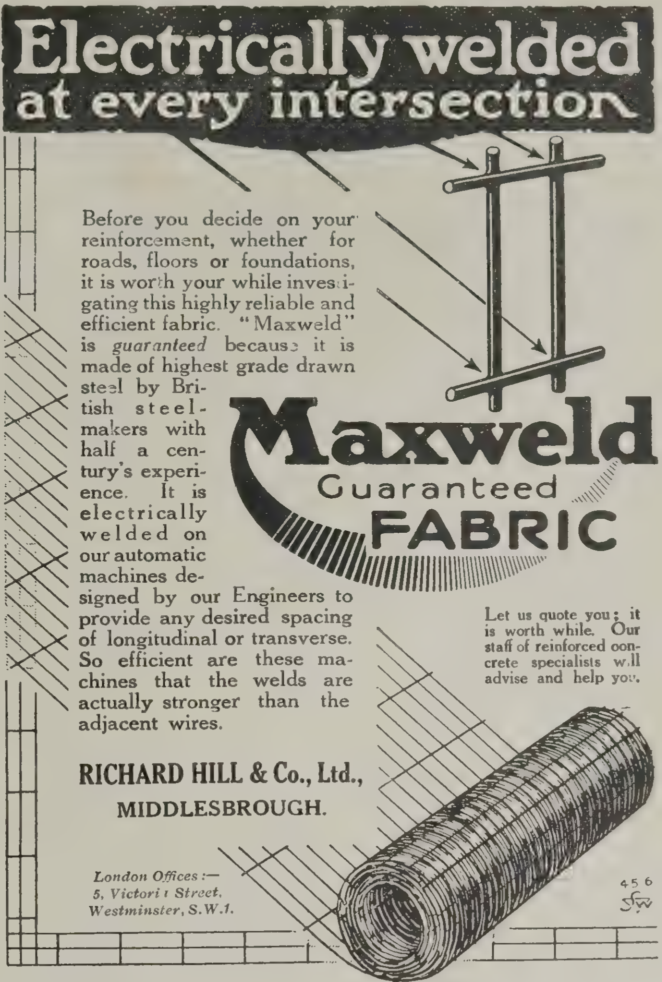
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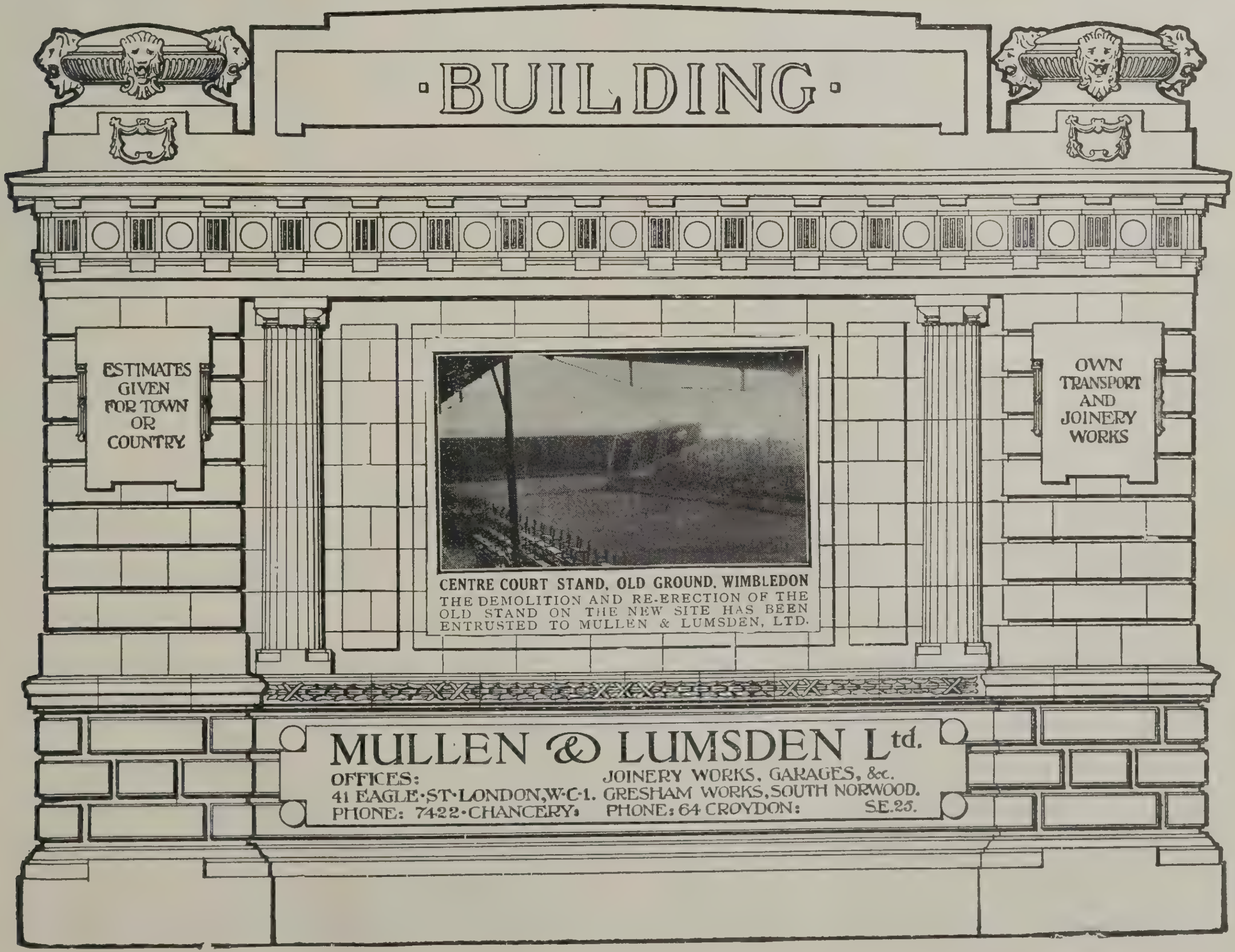
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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s*. per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s*.
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d*.	2*d*.
Add, if in *very* small quantities not exceeding 21 ft.	3*d*.	
Add for filling baskets with *debris* and running same out to carts	1½*d*.	1½*d*.
Add if *debris* has to be raised or lowered to ground level	2*d*.	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d*.	2½*d*.

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d*.
Planking and strutting	4*d*. per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d*.	1/3
¾-in. asphalte	10*d*.	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s*. additional cost of the facing bricks over the common brick basis	½*d*.	½*d*. plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d*.
Flat joint in cement (struck) and lime whiting	1½*d*.

ARCHES.

Extra over common brickwork	Per Ft. Super.
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d*.
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s*. per thousand additional cost of bricks over the common basis price	½*d*. plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/0

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d*.	3¾*d*.	4*d*.	4½*d*.
Add for each side bead butt	4*d*.	4*d*.	4½*d*.	5*d*.

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d*.

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in
Deal, wrot and fixed	2½*d*.	3½*d*.	5*d*.	6½*d*.	9*d*.	11½*d*.	1/1	1/2
Deal, wrot fixed and moulded	2¾*d*.	4*d*.	5½*d*.	7*d*.	10*d*.	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d*.	8½*d*.	11*d*.	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

REPUTATION

as the basis of buying

SOME goods may be bought on appearance, some on smell, some on taste, but these are not very certain tests. Some goods may be bought on more definite tests, such as breaking strength, specific gravity, or boiling point. Some goods can be bought on much more elaborate specifications requiring laboratories and trained experts to verify. And, finally, the ordinary buyer who has no laboratory or experts falls back on reputation.

In buying Cables this test is satisfied if the Buyer obtains

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They have stood the test of time

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- The London Electric Wire Co. & Smiths Ltd.
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- St. Helens Cable and Rubber Co. Ltd.
- Union Cable Co. Ltd.
- Western Electric Co. Ltd.

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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	47/6	54/0	57/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6

	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

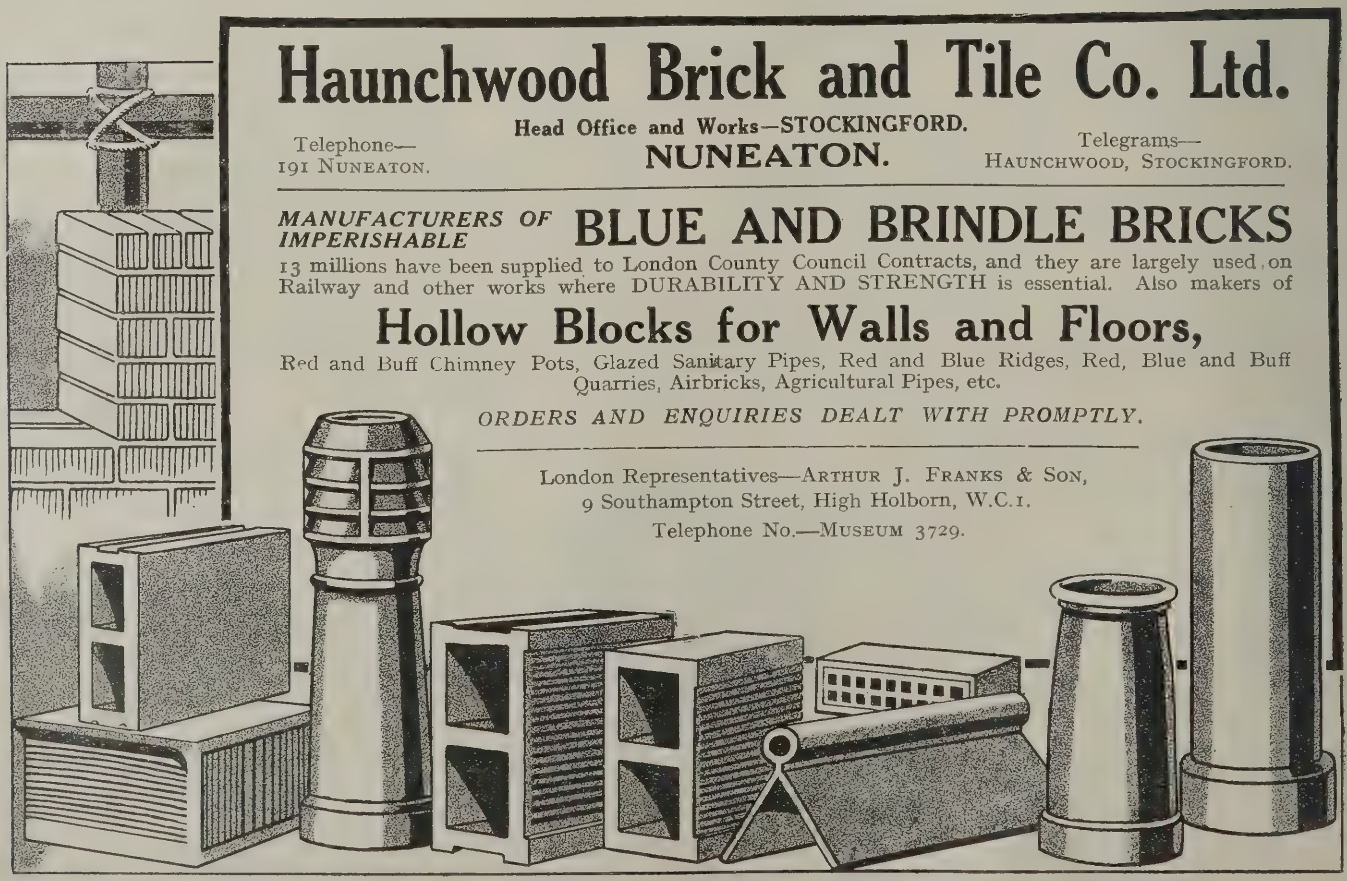
	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	15/6	17/6
Compound girders	19/0	21/0
Stanchions	21/0	23/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3



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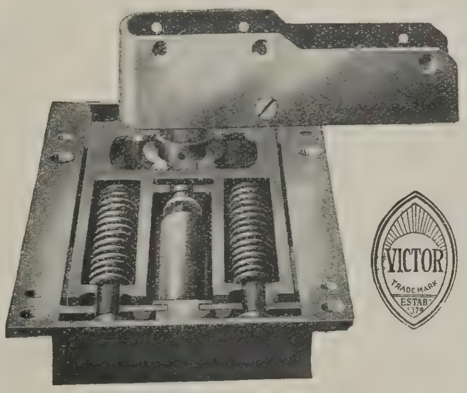

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10½	0/8½	1/0½	0/9½	0/10½	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0

Add for:—

Moulded work .. Add 20 per cent. to the above prices.
Carved work .. Add 150 per cent. to the above prices.
Party colours .. Add 2*d*. per yard super.
Stippling .. Add 2*d*. per yard super.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Stain	Varnish	Flatting	Enamel
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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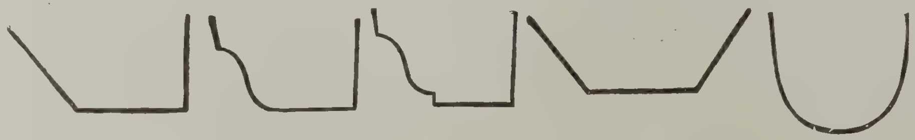

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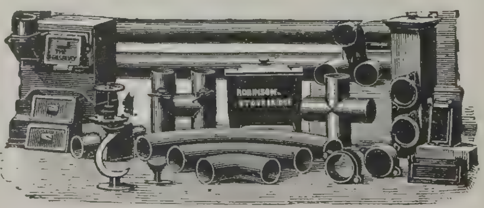

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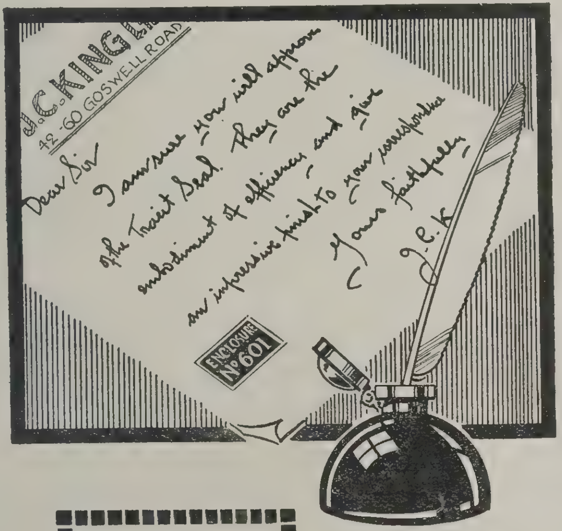
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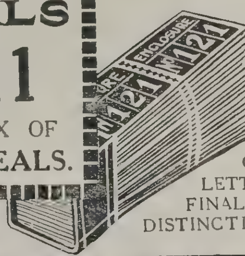

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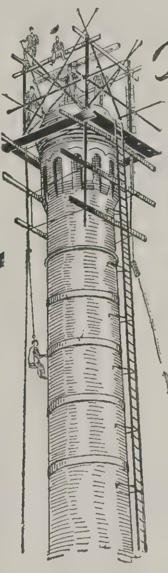

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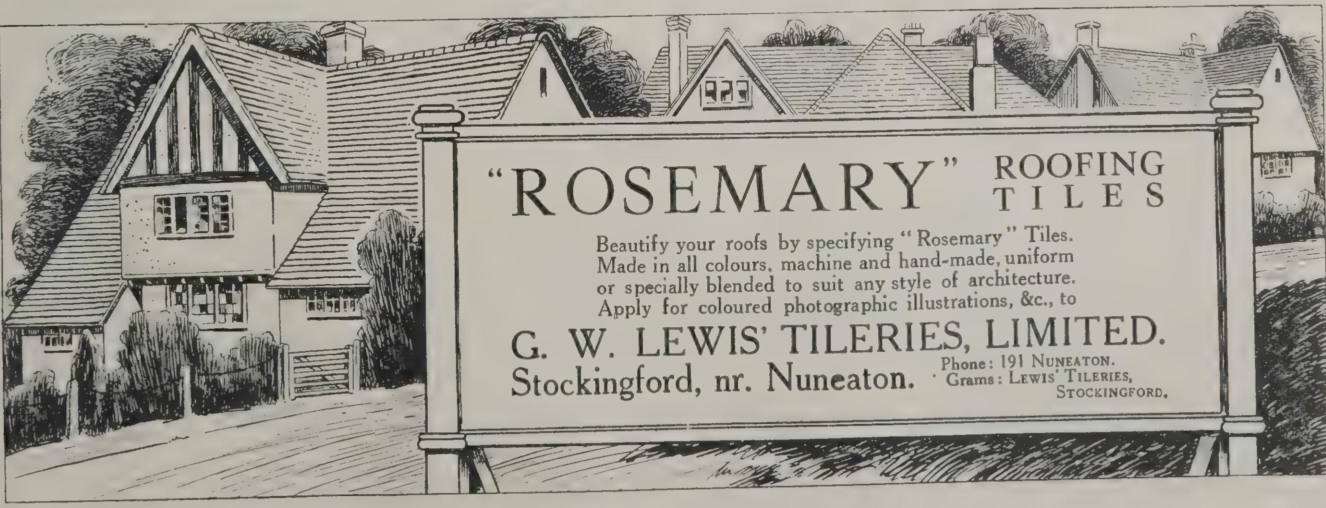

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3¼	1/0¾	11¾*d.*		
1918–Jan. 11	1/3¼ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2¼ +12½%	1/1¼ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	470/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/3	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¼*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	240/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	37/0	Per cwt.
	Ditto	Pipe	37/6	Ditto
	Ditto	Soil	40/0	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. v	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	430/0	Per 1,000
	Ditto	14″ × 9″, ditto	220/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	13/6	Per cwt.
	Ditto	Bolts	35/0	Ditto
	Ditto	Joist	12/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super

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"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

◆

FRIDAY, MARCH 2, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than* 2 P.M. *on Wednesdays.*

CONTRACTS OPEN.

BARNSLEY.—For the different trades required (except concretor) in erection of a block of offices and shops in Eldon Street, for the Town Council. The Borough Engineer, Fairfield House Offices, Barnsley.

BARNSLEY.—March 6.—For all trades in erection of 16 houses at Stairfoot, for the Town Council. The Borough Engineer, Fairfield House Offices, Barnsley.

BETHESDA, LLANFAIRFECHAN.—For erection of a proposed war memorial, executed of "Trevor" granite, and placed in the main thoroughfare of Bethesda. Persons desiring to tender are requested to send their names to Mr. R. J. Hughes, A.R.I.B.A., architect, Llanfairfechan, who will arrange for inspection of plans, &c.

BIRMINGHAM.—March 6.—For erection of thirty parlour type houses in Churchill Road, Bordesley Green, under Contract 104, for the Corporttion. Send applications and £2 deposit by March 6th Mr. H. H. Humphries, M.Inst.C.E., chief engineer, The Council House, Birmingham.

BRIDLINGTON.—March 6.—For erection and completion of detached residence east side Cardigan Road for Mr. C. Bailey. Mr. J. R. Earnshaw, architect and surveyor, Cliff Street Chambers, Bridlington.

CARDIFF.—March 8.—For additions and alterations to the administrative block of the Cardiff Sanatorium, for the Corporation. Deposit £2 2s. The City Architect's Office, City Hall, Cardiff.

CONGLETON.—March 15.—For erection of the proposed hospital and lodge, making of road and footpaths, &c., for the Committee of the Congleton and District War Memorial Hospital. Deposit £2 2s. Mr. J. H. Walters, architect, Moody Chambers, Congleton.

DONCASTER.—March 6.—For erection of 31 loose boxes on land adjoining Belle Vue, for the Corporation. Deposit £1 1s. Mr. R. E. Ford, A.M.I.C.E., Race Department, 3, Priory Place, Doncaster.

DOVERCOURT BAY.—For erection of house and shop, Kingsway. Mr. F. G. Vincent-Brown, architect and surveyor, Dovercourt Bay.

EDMONTON.—March 21.—For erection of entrance gates and porter's lodge at the North Middlesex Hospital, Silver Street, Edmonton, for the Guardians of Edmonton Union. Mr. J. C. S. Mummery, A.R.I.B.A., 34, Bloomsbury Square, W.C.1.

GILLINGHAM.—March 16.—For extension and alteration of the Freemasons' Hall, Balmoral Road, for the Trustees. Deposit £2 2s. Mr. E. J. Hammond, architect and surveyor, 21 Balmoral Road, Gillingham, Kent.

GREENFORD.—March 13.—For provision of goods office accommodation at Greenford, Middlesex, for the Great Western Railway. The Engineer, 7 Eastbourne Terrace, Paddington, W.2.

GUILDFORD.—March 10.—For erection of dressing boxes at the indoor swimming bath, Guildford, for the Town Council. The Borough Surveyor's Office, Tuns Gate, Guildford.

HUDDERSFIELD.—March 12.—For erection of 33 workmen's dwellings in Newsome Road, for the Corporation. The Borough Architect, 1, Peel Street, Huddersfield.

JARROW.—March 12.—For erection of 20 semi-detached, type "A" houses, No. 3 housing scheme, Primrose Hill site, for the Corporation. Tenders must state all inclusive price for each house complete, including all necessary ground work, drains, paths, fencing, water supply, &c. Mr. J. S. Weir, A.M.I.C.E., borough engineer, Town Hall, Jarrow.

LONDON.—March 8.—For alterations to rooms, recently used for X-ray purposes, to convert same for out-patients' use at the Bermondsey and Rotherhithe Hospital, Lower Road, Rotherhithe, S.E., for the Bermondsey Board of Guardians. Deposit £5. Mr. H. H. Reeve, clerk, 283, Tooley Street, S.E.1.

MANCHESTER.—March 8.—For erection of houses on the following estates, for the Corporation :—Clayton estate, North Road, Clayton, from 4 houses up to 44 houses ; Newton Heath estate, Briscoe Lane, Newton Heath, from 4 houses up to 20 houses ; Blackley estate, Walton Road, Victoria Avenue, Blackley, from 4 houses up to 100 houses. Deposit £1 1s. The Housing Director, Town Hall, Manchester.

MODBURY, DEVON.—March 14.—For repairs to the spire and tower of St. George's Church. Mr. F. Coyte, Modbury, or Mr. Harbottle Reed, F.R.I.B.A., architect, 12 Castle Street, Exeter.

MORECAMBE.—March 6.—For alterations, &c., to butcher's shop, Queen Square, Morecambe, for the Lancaster and District Co-operative Society, Ltd. Mr. R. W. Jackson, architect and surveyor, 43, Church Street, Lancaster.

OLD FLETTON.—March 10.—For erection of a fire station, &c., at High Street, for the Urban District Council. Mr. H. W. Hawkins, Surveyor's Office, Old Fletton, Northants.

ORBY.—March 18.—For erection of a Wesleyan chapel at Orby. Mr. J. H. Stephenson, March Road, Orby, Burgh, Lincs.

PEMBROKE DOCK.—March 7.—For building St. Patrick's Schoolroom, Pembroke Dock. Mr. J. C. Carter, architect, Manor House, Prestbury, Glos., before March 7.

PLASHETTS.—For erection of a miners' institute at Plashetts Village. Colliery Office, Plashetts Coal and Coke Co., Ltd., Plashetts, Northumberland.

STOCKPORT.—March 5.—For the labour and materials required in the excavation, drainage, brickwork, joiners' and plumbers' work, &c., required in the proposed new car shed to be erected on the old gasworks site, Heaton Lane, for the Tramways Committee. Mr. H. Hamer, A.M.I.C.E., borough surveyor, Town Hall, Stockport.

SUTTON ST. JAMES.—March 14.—For erection of an institure, for the Committee. Mr. G. Jenkinson, Sutton St. James, Lincs.

SWINDON.—March 16.—For laying a parquet floor of "mid oak" colour in the diphtheria ward at the Hospital, Gorse Hill, for the Swindon and District Hospital Board. Particulars can be obtained upon application to the Matron, and tenders must be sent to Mr. J. M. Johnson, 38, Regent Circus, in sealed envelopes distinctly marked "Tenders," by March 16.

TODMORDEN.—March 5.—For erection of a tennis courts pavilion at Centre Vale Park, all trades to be included in one tender. Mr. H. Crabtree, borough surveyor, Municipal Offices, Todmorden.

TRECADWGAN.—March 7.—For erection of two cottages and two sets of outbuildings on holdings Nos. 3 and 4, Trecadwgan, Solva, for the Pembrokeshire Small Holdings Committee. Deposit £1. Mr. O. T. Thomas, L.R.I.B.A., county architect, County Education Offices, Haverfordwest.

WHEATLEY HILL.—March 21.—For building 12 aged miners' cottages, at Wheatley Hill. Mr. Welsh, architect, 1, Gowland Terrace, Wheatley Hill, Durham.

WINDSOR.—March 8.—For carrying our some repairs at 10 Church Street, Windsor, for the Town Council. Mr. E. A. Stickland, borough surveyor, 16, Alma Road, Windsor.

WITHAM.—March 5.—For erection of 12 semi-detached houses on the Cocks Farm site, or for any portion of that number, for the Urban District Council. Mr. W. P. Perkins, surveyor, Collingwood Road, Witham.

WORTHING.—March 15.—For the construction and supply of six timber-framed beach cabins, for the Town Council. The Borough Surveyor, Municipal Offices, Worthing.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅓th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	Per Ft. Super reduced In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast .. .. .. Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½*d.*
Flat joint in cement (struck) and lime whiting		1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super.
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost ..	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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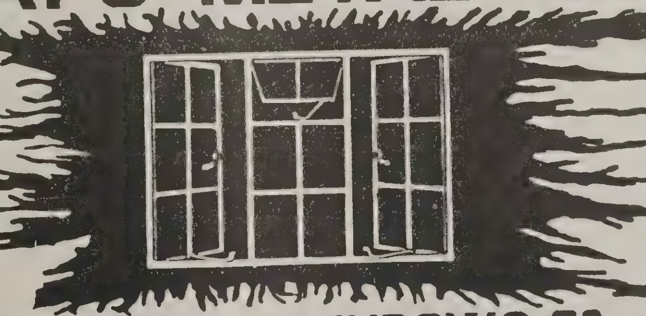

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	47/6	54/0	57/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints .. .	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

	Per Foot Run	
Iron (L.C.C.) pipes	2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints	2/0	3/0
Extra for bends .. .. each	7/5	11/2
Extra for junctions .. .. each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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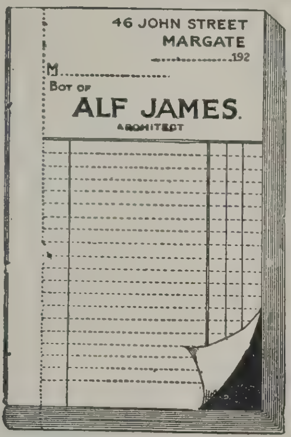

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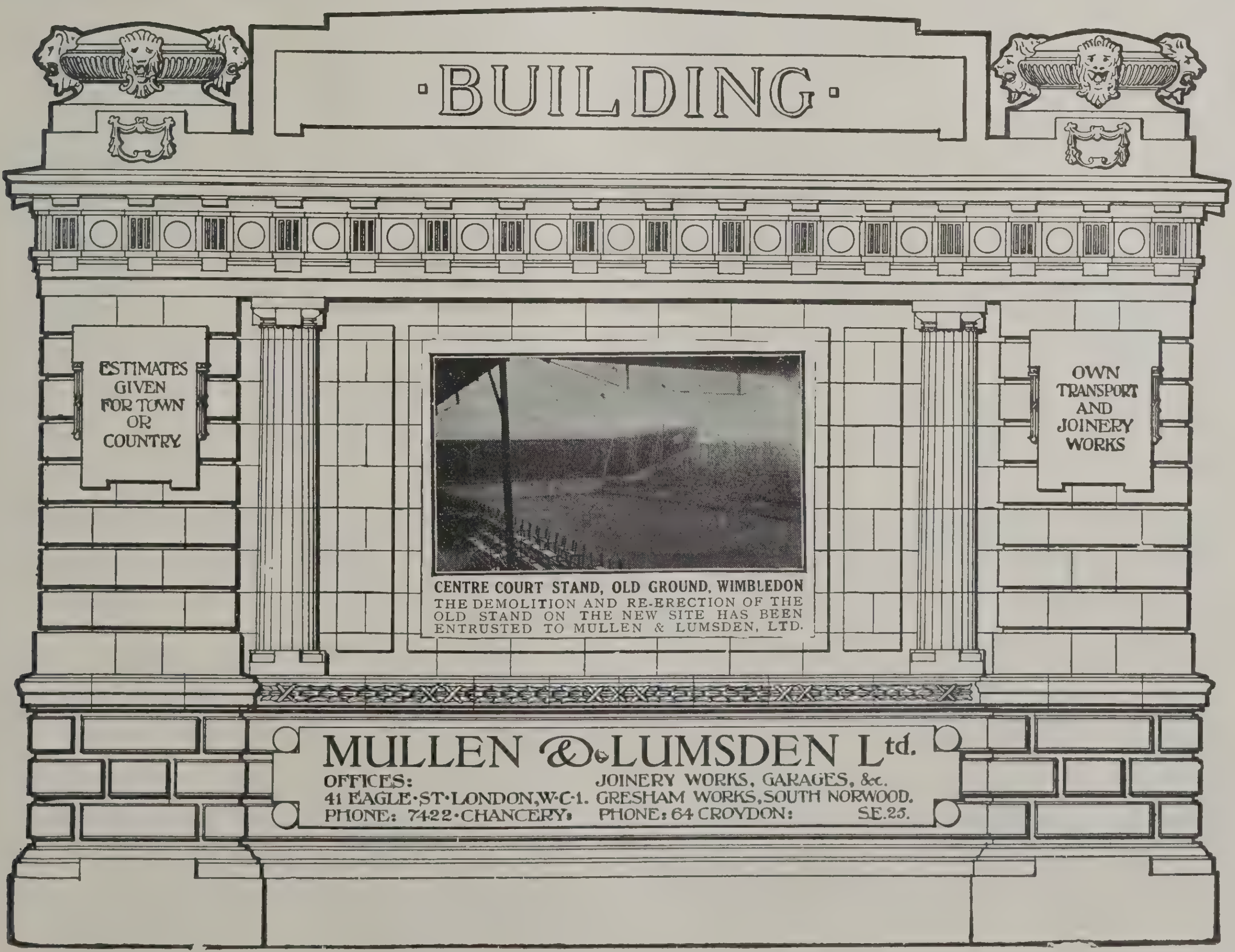
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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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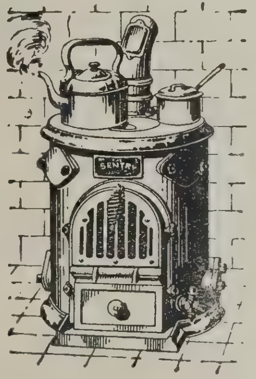

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1d. to Mechanic's Rate
1916–July	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0¾	11¾d.		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½d. to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto, headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝d.	
	Ditto	Ditto 21 oz.	5½d.	
	Ditto	Ditto 26 oz.	6⅞d.	
	Ditto	Rough cast ¼″	6¾d.	
	Ditto	Wired, cast	10½d.	
	Ditto	Figured, rolled	8d.	
	Ditto	Flemish or Arctic	8d.	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″×3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″×2½″	3/2	
	Ditto	Ditto, ditto, 6″×2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	37/0	Per cwt.
	Ditto	Pipe	37/6	Ditto
	Ditto	Soil	40/0	Ditto
	Ditto	White	55/0	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	23/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	76/3	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″×10″, Welsh	430/0	Per 1,000
	Ditto	14″×9″, ditto	220/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½d.	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″×6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/0	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5d. 6d.	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4d.	Per foot super.

Hairdressing Saloon
Messrs. Selfridge & Co., Ltd.

Architects : Messrs. GRAHAM, ANDERSON, PROBST & WHITE.

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THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

◆

FRIDAY, MARCH 9, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

CONTRACTS OPEN.

AYLESFORD, KENT.—March 13.—For erection of two detached cottages at Preston Hall, Kent, for the Small Holdings Sub-Committee. Send application by March 13 to Mr. W. H. Robinson, F.S.A., architect, Sessions House, Maidstone.

BARGOED.—March 19.—For erection of 20 houses, in blocks of four and two, types A and B, on the Heolddu site, Bargoed, for the Gellygaer Urban District Council. Separate prices for each type may be sent in, but contractors may tender for the whole 20 houses or for one or more types. Tenders must be submitted for building in stone or brick alternatively. Deposit £2 2s. Mr. P. J. Williams, architect, Council Offices, Hengoed.

BINGLEY.—March 13.—For all trades required in erection of a pair of semi-detached villas, West Green Gate Estate, near Cottingley Bridge, Bingley. Mr. F. Atkinson, M.S.A., architect, Old Bank Chambers, Bingley.

BRAMLEY.—For the various works required in alterations and additions to the Premier Works, Henconner Lane, Bramley, Yorks. Mr. A. T. Verity, architect and surveyor, Moor-Dene, Birkenshaw, Bradford.

BURLEY IN-WHARFEDALE, YORKS.—March 21.—The West Riding Education Committee invite whole or separate tenders for repairs to premises and painting works, required at the Infants' Council School. The Education Department, County Hall, Wakefield.

CAMBORNE.—March 14.—For works in connection with erection of a mortuary, etc., at Tehidy Sanatorium, Camborne, for the Cornwall County Council. Messrs. Cowell, Drewett and Wheatley, architects, Lennards Chambers, Penzance.

CHATHAM.—March 14.—For adaptation of "Holcombe," Maidstone Road, Chatham, for use as a technical institute and junior technical school, for the Kent Education Committee. Send application and £2 deposit by March 14 to Mr. W. H. Robinson, F.S.Arc., county architect, Sessions House, Maidstone.

CLECKHEATON.—March 19.—For all trades in erection of 22 houses of the scullery type, in Cleckheaton for the Spenborough Urban District Council. Deposit £1. Mr. A. Rothera, surveyor to the Council, the Public Offices, Liversedge.

CLEWER.—March 16.—For erection of 32 houses to complete the housing scheme at the site at Clewer, for the Windsor Town Council. Messrs. Edgington and Spink, architects, 52, High Street, Windsor.

COLWYN BAY.—March 16.—For erection of 10 workmen's dwellings at Church Road, Rhos, for the Urban District Council. Mr. W. J. Dunning, M.I.M. and C.E., engineer and surveyor, Council Offices, Colwyn Bay.

DARLINGTON.—March 20.—For erection of 26 houses on the Cockerton site, for the Corporation. The houses are in pairs and builders may tender for any number of the blocks to be erected. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

DENBIGH.—March 19.—Repair of Tower, etc.—Tenders are invited by the Representative Body of the Church in Wales for the demolition of the nave, aisle and chancel and for the repair of the tower of St. Hilary's Church, Denbigh. Tenders to be delivered not later than 12 noon on March 19, at the office of Mr. G. R. Griffith, architect, 2, Post Office Lane, Denbigh, from whom also specification and full particulars may be obtained.

EDINBURGH.—March 17.—The City Council invite tenders for erection of 24 houses, either as one contract for all trades, or as a series of separate trades' contracts, as may be arranged, at Jeffrey's Brewery site, Grassmarket. Messrs. Begg and Lorne Campbell, FF.R.I.B.A., architects, 60, Castle Street, Edinburgh.

GREENWICH.—March 15.—For building an additional storey and making sundry alterations to a part of the existing laundry buildings of the Greenwich and Deptford Hospital, for the Guardians. Deposit £2 2s. Mr. I. Jacob, surveyor, 39, Bloomsbury Square, W.C.1.

HEREFORD.—March 16.—For repairing the defective roofs on the hospital block of the Workhouse, for the Guardians. Copy of specifications can be obtained from the architect, Mr. H. Skyrme, Imperial Chambers, Widemarsh Street, Hereford, to whom tenders should be forwarded by March 16.

HULL.—March 21.—For erection of an infectious diseases pavilion, including drainage, etc., at the Cottingham estate, for the Health Committee. Deposit £2 2s. The City Architect, Guildhall, Hull.

LEEK.—For erection of proposed factory in Leek. Mr. W. Ingham, architect, 2, Church Street, Leek, Staffs.

LIVERPOOL.—March 21.—For extension of premises for the Old Swan Telephone Exchange, for the Commissioners of His Majesty's Works, etc. H.M. Office of Works, National Provincial Bank Chambers, James Street, Liverpool, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LONDON.—March 20.—For taking down certain walls and buildings, and for building a boundary wall at the rear of their Infirmary, Cale Street, Chelsea, for the Guardians. Send application and £2 deposit by March 17 to Mr. E. J. Harrison, L.R.I.B.A., 23, Berkeley Road, Crouch End, N.8.

LONDON.—March 21.—For erection of walls and fences of the new burial ground, near Alexandra Avenue, Chiswick (about 520 yards lineal), for the Urban District Council. Mr. E. Willis, M.I.C.E., engineer and surveyor, Town Hall, Chiswick, W.

LOSTOCK.—March 16.—For erection of a grocery branch shop at the top of Oxford Road, fronting Chorley New Road, Beehive, Lostock, for the Horwich Industrial Co-operative Society, Ltd. Deposit £2 2s. Mr. H. J. Close, general secretary, 86, Lee Lane, Horwich, near Bolton.

NEWTOWN.—March 17.—For the erection and completion of six houses in Llanidloes Road, for the Newtown and Llanllwchaiarn Urban District Council. Messrs. Davies and Hill, architects and surveyors, Severn Square, Newtown.

NORTHUMBERLAND.—March 19.—For reconstruction and widening of masonry bridges in various parts of the country, for the County Council. Mr. J. A. Bean, county surveyor, Moothall, Newcastle-on-Tyne.

OUTWELL.—March 17.—For erection of a house at Outwell, near Wisbech, for Mrs. G. Doubleday. Deposit £2 2s. Mr. W. Fovargue, architect and surveyor, The Causeway, March.

PAIGNTON.—For erection of dairy, fruit and vegetable shops, with dwelling accommodation over, at Preston, Paignton, for the South Devon Farmers' Association. Mr. B. H. Palmer, architect and surveyor, 11, Union Street, Newton Abbot.

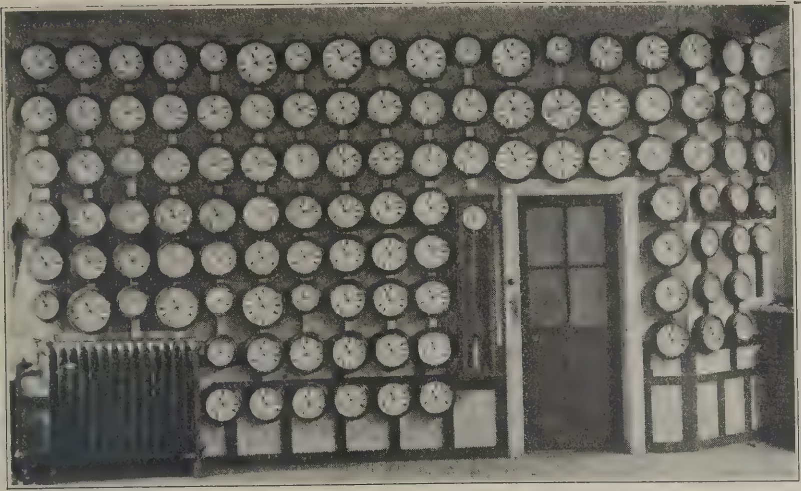
SUTTON.—March 22.—For additions to farm buildings at the High Bransholm Farm, Sutton, for the Hull Corporation. Deposit £2 2s. City Architect, Guildhall, Hull.

WHITEHAVEN.—For erection of 128 houses, being the first part of the Kell's building scheme for the Whitehaven Colliery Co., Ltd. Deposit £2 2s. Mr. H. C. Reynolds, commercial manager and secretary, 51, Duke Street, Whitehaven.

WOKING.—March 26.—The Surrey Agricultural Committee invite tenders from builders who have adopted the Government scheme for training ex-Service men in the building industry for alterations and repairs to farm house and buildings at Moor Lane Farm, Woking. Deposit £1 1s. Major C. R. Harding, county land agent, County Hall Annexe, Kingston-on-Thames.

YEOVIL.—March 17.—For erection of a dwelling house in Alexandra Road, for Mr. L. H. Foan. Deposit £1 1s. Mr. A. J. B. Abbott, P.A.S.I., M.R.S.I., architect and surveyor, Vicarage, Street, Yeovil.

YORK.—March 14.—For the construction of a swimming bath at Rowntree Park, for the Corporation. Deposit £2 2s. Mr. F. W. Spurr, city engineer, Guildhall, York.



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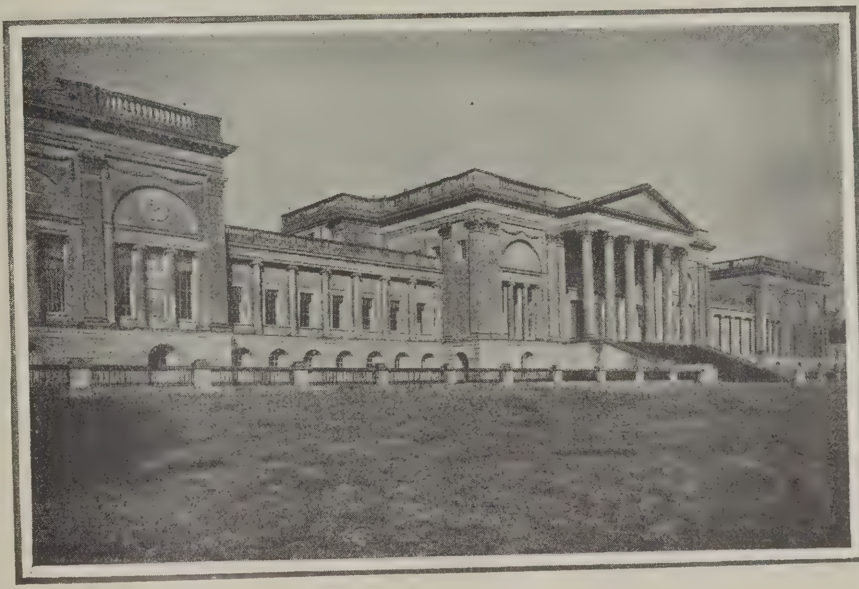
The Architect is Clough Williams-Ellis, Esq., 22 South Eaton Place, London, S.W.1.



Stowe House: the South front.

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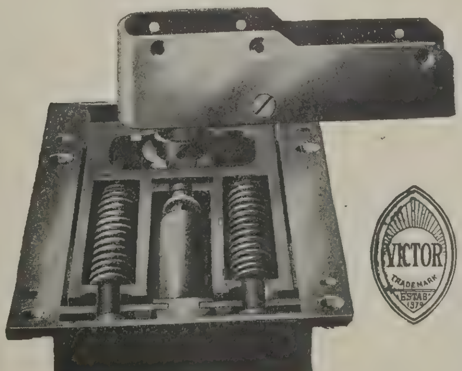

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CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto..	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super.
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost ..	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price..	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2¼*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6¼*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5¼*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8¼*d.*	11½*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Where 'SX' BOARD is made

THE letters "SX" which distinguish the British made wallboard were used originally to denote the origin of this well-known building material, namely Essex in which County the Mills that produce "SX" Board are situated. Appropriately enough these same letters stand for "*Strength*" and EXcellence, qualities admittedly possessed by "SX" Board.

The Thames Mills, Purfleet, Essex, are the largest of their kind in Europe, giving employment to over 1,000 workers. "SX" Board is the only widely used wallboard actually manufactured in this Country. Therefore, in the interest of British Industry insist on "SX" Board—the board that is really *made* in Britain.

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BRITISH MADE

By Test The Best

'SX' BOARD
The British WallBoard THAMES MILLS • PURFLEET

S.B. 116.

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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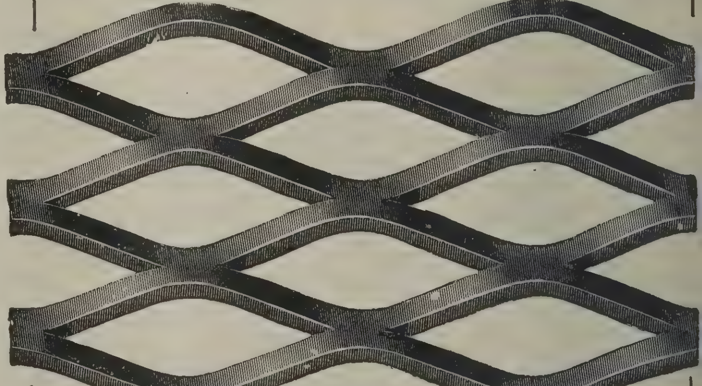

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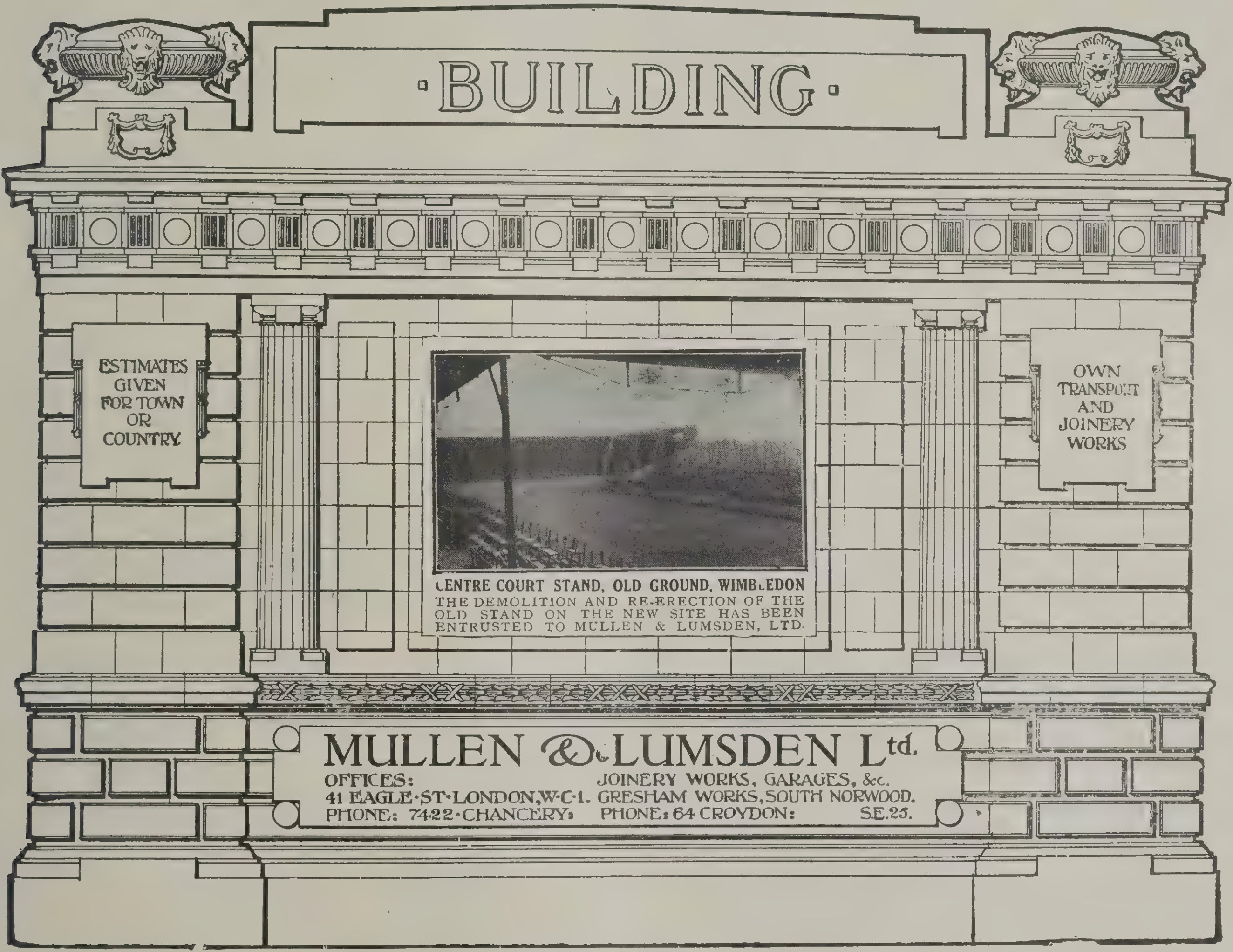

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceiling.	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	2/3	0/4½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
ncrete slab partition fixed ready for plastering ..	5/	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0

Add for :—

Moulded work ..	Add 20 per cent. to the above prices.
Carved work ..	Add 150 per cent. to the above prices.
Party colours ..	Add 2*d.* per yard super.
Stippling ..	Add 2*d.* per yard super.

If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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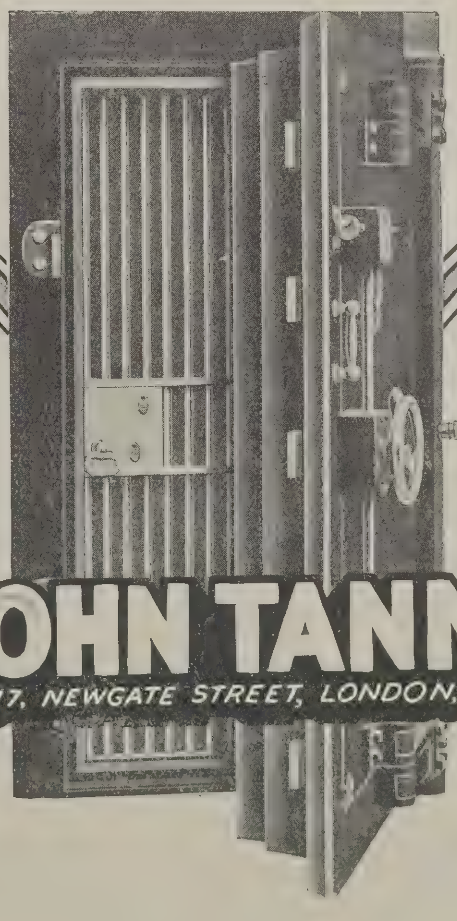

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	Add 1d. to Mechanic's Rate
1916–July	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0¾	11¾d.		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	Add ½d. to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	Add d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11		
1921–July 1	2/2	2/1	1/10	For working in waterboots or cold storage or artificial atmosphere or from boats	Add 1d. to the workman's class rate
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	80/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝d.	
	Ditto	Ditto 21 oz.	5½d.	
	Ditto	Ditto 26 oz.	6⅞d.	
	Ditto	Rough cast ¼″	6¾d.	
	Ditto	Wired, cast	10½d.	
	Ditto	Figured, rolled	8d.	
	Ditto	Flemish or Arctic	8d.	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/6	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	33/0	Per cwt.
	Ditto	Pipe	38/6	Ditto
	Ditto	Soil	41/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	23/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	430/0	Per 1,000
	Ditto	14″ × 9″, ditto	220/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½d.	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5d. 6d.	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4d.	Per foot super

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Bishopsgate House, Bishopsgate
Britannic House, Finsbury Circus (2 installations)
British Bank of South America, Moorgate
Broad Street House
Cannon Street House (2 installations)
City Offices Co., 39 Lombard Street
Cory & Sons, Ltd., Fenchurch Street
Dashwood House, New Broad Street
East India Chambers
18 Finsbury Circus (2 installations)
Great St. Helen's Estates (3 installations)
Gresham House, Old Broad Street
Guardian Assurance, King William Street
Harrisons & Crosfield, Ltd., Great Tower Street
Holland House, Bury Street, St. Mary Axe
Leadenhall House (2 sets)
Leathersellers' Hall, St. Helen's Court (2 sets)
Law Union & Rock Insurance Co. (2 sets)
Lloyds Bank, Ltd., King William Street
London Assurance Building, King William Street
London Joint Stock Bank, Princes Street
Northern Assurance Co., Ltd., Moorgate Street (2 sets)
Ocean House, Lower Thames Street
Old Change, Cheapside (2 installations)
Provident Mutual Assurance Co., Ltd., Moorgate Street
Rylands & Sons, Ltd., Wood Street
Salters' Hall, Cannon Street
Scottish Provident Institution Buildings, King William Street (2 sets)
Shorters Court, Throgmorton Street
Standard Bank, South Africa
Threadneedle House
Union of London & Smiths Bank, Princes Street
Warnford Court, Throgmorton Street
Winchester House, Old Broad Street

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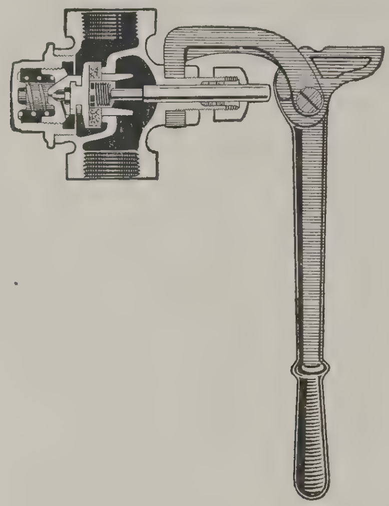
Messrs. Jenkins, Ltd., 6 Great Queen Street, Kingsway, W.C.,—whose works are in Montreal, Canada—have just introduced to the British market a new type of rapid action valve. The accompanying sectional view shows how spring and pressure in the line hold the disc on the seat when the valve is closed. The hand lever when given a pull of a quarter turn bears on the end of the steel spindle, which forces disc off the seat, thus opening the valve. The lever aligning with the spindle positively holds the valve open. A slight pull on the lever will throw it out of alignment with the spindle, and the disc is then immediately forced on seat. This fitting has been designed to meet a need for a valve that can be opened and closed instantaneously without water-hammer, and that will automatically stay open without the aid of set screws, locking devices or other appliances. The action of these valves is not only quick and efficient but absolutely dependable, due to their careful design and standardisation of manufacture. The water-hammerless feature is specially very important. Modifications of the Jenkins' Rapid Action Valve are made for special uses.



Trade Notes.

Messrs. Redpath, Brown & Co., Edinburgh, have secured the contract for additions to the factory of Messrs. Michael Nairn & Co., linoleum manufacturers, Kirkcaldy. Nearly 3,000 tons of steel will be supplied and erected by this firm. The building is to be of ten floors, one of the largest of its kind in this country, and will be completed within eight months.

We are requested to announce that Messrs. Wailes Dove Bitumastic Ltd., owing to the increasing demand for their bitumaster enamels and solutions, have opened Yorkshire offices at 2, Bank Street, Sheffield, under the charge of Mr. Arthur Swindell. Telephone number, Central 2086. Telegrams, "Bitumastic, Sheffield."

Messrs. R. Jenkins and Co., Ltd., of Rotherham, have just issued a new illustrated list of their "Eco" combination, and in it set forth the happy results of an alliance between an "Eco" boiler and a cooker heated by gas, electricity, or petrol air gas. It will doubtless be remembered that in this patent the waste heat of the boiler passes through a side outlet and round the cooker before escaping up the chimney. It is claimed that a saving of about 75 per cent. of gas is made.

Boyle's latest patent "Air-Pump" ventilators have been applied to Messrs. Montgomerie & Co.'s Bermaline Factory, Ibrox, Glasgow; to the New Elwick Club, Ashford, Kent, and to Messrs. J. and P. Coats' Ferguslie Thread Works, Paisley. They were supplied by Messrs. Robert Boyle & Son, Ventilating Engineers, Holborn Viaduct, London.

Messrs. Smith & Wellstood, Ltd., 11 Ludgate Circus, E.C., devote their list E.B.22 to their No. 1 "Hydresse" independent boiler, which is recommended for use where constant domestic hot water is required. The No. 1 "Hydresse" boiler has been introduced to overcome the defects arising from the range or the gas water heater to ensure a steady copious supply of hot water at a low cost, combining the advantages of a visible fire, a fire that will keep alight all night and is under complete control, and a refuse destructor, with accommodation for a small amount of cooking.

General.

Mr. Delissa Joseph, F.R.I.B.A., announces the removal of his offices from 38, Coleman Street, London, E.C.2, to 2, Basinghall Avenue, E.C.2. His telephone number is 1138 London Wall, and telegraphic address "Rebuilding, London."

Messrs. R. Butcher & Son, Warminster, have had their tender accepted for the erection of a dressing yard, with reinforced concrete pits, for Messrs. Ivelnap, Ltd., Yeovil—Mr. Arthur J. B. Abbott, P.A.S.I., being the architect. The cost will be £937.

On Tuesday, March 27, Mr. P. J. Waldram will open a discussion before the Illuminating Engineering Society on "Window Design and the Measurement and Pre-determination of Daylight Illumination." The meeting will be held at the Royal Society of Arts (18 John Street, Adelphi), at 8 p.m.

The Birmingham Public Works and Town Planning Committee recently sanctioned the placing of contracts for the building of 439 houses. The new dwellings will comprise 226 of the non-parlour type on the Billesley House estate, contractors, Messrs. Stubbings and Fell, Sutton-in-Ashfield; 31 parlour type houses on the Billesley Farm estate, Messrs. Eadie, Towers & Co., Wolverhampton; 84 parlour type in Nansen Road, Messrs. Morris & Jacombs, Birmingham; and 98 non-parlour type in Heather and Somerville Roads, Small Heath, Messrs. W. Edwards, Ltd., Birmingham.

The Incorporation of Architects in Scotland held their usual monthly meeting of the council on the 22nd ult., at 117 George Street, Edinburgh, Mr. T. P. Marwick, F.R.I.B.A., president, in the chair. It was resolved to send a circular to all large burghs and county councils in Scotland calling attention to the advisability of employing expert architectural assistance in connection with town planning schemes under the Housing and Town Planning Act of 1919. It was arranged that a letter be sent to Sir John J. Burnet, A.R.A., R.S.A., LL.D., conveying the council's congratulations on being selected for the honour of the Royal Gold Medal, 1923.

In the House of Commons last week, Mr. A. Hayday (Lab., Nottingham W.) asked the Minister of Health whether he had received the inspector's report of the inquiry held into the over-payment by the Liverpool Corporation of £383,000 to the contractors in connection with the Garston Housing Scheme, and if so, would he cause such report to be placed upon the table. Mr. Neville Chamberlain replied as follows: "The inspector's investigations are not yet completed, and I have only received an interim report. When the final report is received I will consider the hon. member's suggestion that the reports should be made available for hon. members."

The Royal Academy of Music are anxious to enlarge their premises in Marylebone Road, London, W., by the addition of a students' training theatre at a probable cost of £35,000. The theatre, which will be built of brick and reinforced concrete, will occupy a site in the rear and adjoining the existing building with a frontage to York Terrace and also an entrance from the present Academy. There is a frontage of 70 feet with an average depth of 100 feet, and a maximum width of 100 feet. The proscenium opening will be 30 feet wide and 27 feet high. The auditorium—including two boxes and balcony—is arranged to seat 430 people at present, with a possibility of extension in future for seating about 600.

"How many bricks can you lay in a day?" asked his Honour Judge Greenwell, of a bricklayer who appeared on a judgment summons, at Gateshead County Court, last week, and who informed the Court that he was paid £3 12s. per week. Debtor: "It all depends on the job." His Honour: "On a straight job?" Debtor (smiling): "Oh, I should say about 300 per day." His Honour: "What! Only 300? It is perfectly scandalous you idling your time away. That is why there are no houses built and the rest of the population is without houses. If you fellows would work as you have worked, and as you can work, there would be plenty of houses. You stand there smiling as though it was a huge joke when you ought to be ashamed of yourself."

At a general meeting of the South Wales Institute of Architects (Western branch), held at the Baltic Lounge, Swansea, the following officers were elected for the ensuing year: Chairman, Mr. Charles S. Thomas, F.S.A.; hon. treasurer and librarian, Mr. H. C. Portsmouth, F.S.A.; hon. secretary, Mr. J. Herbert Jones, F.S.A. Committee—Messrs. Glendinning Moxham, F.R.I.B.A., O. Russell Peacock, F.S.A., J. Cook Rees, F.S.A., Thomas Gibb, M.S.A., G. R. H. Rogers, G. L. Crocker, and W. T. Lloyd. Mr. Ernest E. Morgan, A.R.I.B.A., was elected hon. auditor. The following were elected to the Council of the South Wales Institute of Architects: Messrs. Charles S. Thomas, H. C. Portsmouth, J. Herbert Jones, Glendinning Moxham, and J. Cook Rees. The associates' representative is Mr. G. L. Crocker.

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FRIDAY, MARCH 16, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ANCOATS.—March 28.—For erection of a complete building, including foundations, steelwork, drains, machine foundations, &c., for the new Ancoats sub-station, Manchester, for the Electricity Committee. Mr. F. E. Hughes, secretary, Electricity Department, Town Hall, Manchester, or Mr. S. L. Pearce, chief engineer and manager, Dickinson Street, Manchester.

ASHFORD.—March 28.—For internal repairs, painting, etc., at the Assembly Rooms, for the Urban District Council. Mr. W. Terrill, surveyor, 5 North Street, Ashford, Kent.

BINGLEY.—March 20.—For repairs to roof, walls, pointing, etc., at Bingley, Wilsden Council School, for the Education Committee. Mr. B. Leah, Education Office, Bingley, Yorks.

BRIDGNORTH.—March 23.—For erection of two blocks of cottages, three in each block, for the Corporation. The Borough Surveyor's Office, Bridgnorth.

CEFU CELFI.—March 23.—For repairs to house and buildings at Cefu Celfi, for the Glamorgan Agricultural Committee. The Police Station, Rhos, Cilybebyll, and the County Land Agent, 30 Park Place, Cardiff.

CLIFFORD.—For the trades required in erection of additions to the Convent of Our Lady of Mercy, Clifford, near Boston Spa. Messrs. E. J. Dodgshun and L. S. Dodgshun, architects, Boston Spa, Yorks.

COEDELY.—March 20.—For erection of a chapel at Coedely, for the Primitive Methodists. Deposit £2 2s.. Messrs. R. S. Griffiths and Partners, architects, Tonypandy.

DARTFORD.—March 28.—For erection of a building to be used as ambulance store at Joyce Green Hospital, for the Metropolitan Asylums Board. Mr. T. Cooper, M.I.C.E., M.I.M.E., engineer-in-chief, the Office of the Board, Embankment, E.C.4.

GILFACH GOCH.—March 20.—For erection of business premises at the Garden City, Gilfach Goch, for Mr. L. Tambini. Messrs. R. S. Griffiths and Partners, architects, Tonypandy.

GLASGOW.—March 19.—For the following works: Erection of public baths and washhouses in Pollokshaws, for the Glasgow Corporation, viz. :—(1) Excavator, concrete, brick, mason, and ferro-concrete works; (2) carpenter, joiner and ironmongery works; (3) glazier work; (4) plumber work; (5) engineering work; (6) plaster work; (7) asphalte work; and (8) tile and marble work. The Office of Public Works, 64 Cochrane Street, Glasgow.

GREENWICH.—March 21.—For the following works as unemployment relief works, for the Borough Council, viz. :—(*a*) Sanitary, constructional and renovation works at Town Hall; (*b*) repairs, etc., at Straightsmouth convenience; (*c*) repairs and decorations at South Street, Blackwall Lane, and Creek Road conveniences. The Borough Engineer's Office, Town Hall, Greenwich Road, S.E.10.

HASTINGS.—April 7.—For erection of 62 houses at Silverhill, for the Corporation. Deposit £2. Mr. P. H. Palmer, M.I.C.E., borough engineer, Town Hall, Hastings.

HELMSDALE.—March 26.—For the mason work, etc., of a War Memorial clock tower, to be erected in Helmsdale. Mr. J. A. Hosie, surveyor and architect, Lairg.

HONLEY.—For the various trades required in erection of additions to Queen's Square Mills. Messrs. J. Kirk and Sons, architects, Central Buildings, Market Place, Huddersfield.

HORNSEA.—March 19.—For the construction of a sea wall, cliff retaining wall and groynes along the foreshore, for the Urban District Council. Deposit £2 2s. Mr. A. R. Roberts, deputy surveyor to the Council, Hornsea, E. Yorks.

KNOTTINGLEY.—April 3.—For all trades excepting painting in erection and completion of villa residence, for Mr. T. Jackson. Deposit £2 2s. The Headlands Glass Works, Knottingley, or Mr. J. R. Earnshaw, architect and surveyor, Cliffe Street Chambers, Bridlington.

LINTON.—March 24.—For erection and completion of one hundred houses at Coton Park Colliery, Linton, near Burton-on-Trent, for the Moira Colliery Company, Limited. Mr. T. Jenkins, Lic. R.I.B.A., architect, Arcade Buildings, Station Street, Burton-on-Trent.

LITHERLAND.—For erection of a refuse destructor chimney in Field Lane, for the Urban District Council. Mr. G. Ponsford, M.Inst.M.Cy.E., Council Offices, Sefton Road, Litherland.

LLANELLY.—March 24.—For the conversion and fitting up of premises in Frederick Street Lane, for the purposes of a weights and measures office, for the Carmarthen County Council. Mr. G. Henry, county surveyor (Eastern Division), Town Hall, Llandilo.

LONDON.—March 26.—For alterations and additions to their hospital in Sydenham Road, Sydenham, S.E.26, for the Committee of the South-Eastern Hospital for Children. Deposit £3. Mr. E. T. Hall, F.R.I.B.A., F.R.S.I., and Mr. E. S. Hall, M.A., F.R.I.B.A., architects, 54, Bedford Square, London, W.C.1.

LONDON.—April 9.—The General Purposes Committee of the United Services Fund invite tenders for structural, repair and decorative works required to be done at the Children's Home, Wimbledon Common, S.W.19. Send applications and £5 5s. deposit by March 27 to Mr. A. H. Davis, F.S.I., M.R.S.I., surveyor, 19, Hanover Square, W.1.

NETHERTON.—March 21.—The Wakefield Rural District Council invite whole tenders for erection of four "A" north-type houses in two blocks at Netherton, near Wakefield. Messrs. Massie & Holdsworth, architects, Yorkshire Buildings, Wood Street, Wakefield.

NORTHUMBERLAND.—March 19.—For the reconstruction and widening of masonry bridges in various parts of the county, for the Northumberland County Council. The County Surveyor, Moot Hall, Newcastle-on-Tyne.

PEVENSEY.—For the following works at Peelings estate, near Pevensey, Sussex, for the East Sussex Agricultural Committee, viz.: (Section 1) pair of new cottages, water supply, &c.; (2) six sets of new farm buildings, water supply, &c.; (3) repairs to two pairs of existing cottages. Deposit £2 2s. Mr. R. H. B. Jesse, director of agriculture, County Hall, Lewes.

PLYMOUTH.—March 19.—For repairs to certain premises at Nos. 6 and 7, Waterloo Street, Stonehouse, Plymouth, and No. 2, Granby-Ope, Devonport, for the Plymouth Corporation. The Medical Officer of Health's (Housing) Department, Town Hall, Stonehouse, Plymouth.

RAMSGATE.—March 22.—For alterations and additions to the public conveniences on the Victoria Parade, for the Corporation. Mr. T. G. Taylor, borough engineer, Albion House, Ramsgate.

ROTHERHAM.—March 24.—For erection of a further 50 houses on section "D" of the Doncaster Road housing site, for the Town Council. Deposit £2 2s. Mr. C. A. Broadhead, housing architect, St. George's Hall, Rotherham.

RYDE.—March 26.—For certain repairs and redecorating work at the small Town Hall, for the Town Council. The Borough Surveyor, Town Hall, Ryde, I.W.

SALFORD.—March 20.—For building public conveniences, for the Town Council. Deposit £2 2s. The Borough Engineer's Office, Town Hall, Salford.

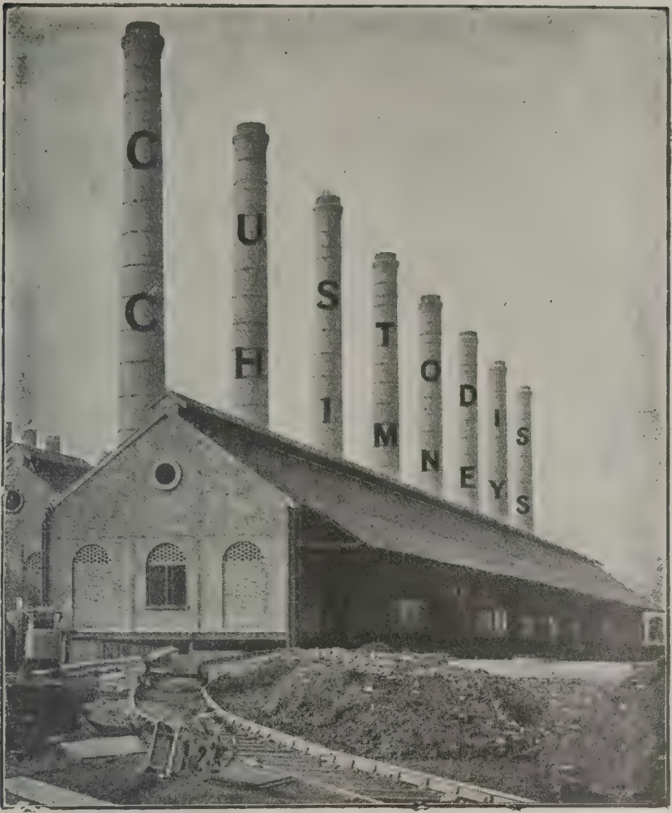
SHIPLEY.—March 19.—For erection of a bandstand in North Cliffe Woods, for the Urban District Council. Mr. H. Dawson, architect, Council Offices, Somerset House, Shipley.

SKIPTON.—For rebuilding the Unicorn Hotel, Skipton, for Messrs. Bentley's Yorkshire Breweries, Ltd. Mr. J. W. Broughton, architect, &c., Skipton.

WARTON.—March 27.—For building an engine house and driver's cottage, and other work in connection therewith, at Warton, in the parish of Polesworth, for the Atherstone Rural District Council. Deposit £2 2s. Mr. H. J. Coleby, engineer and surveyor to the Council, 102 Long Street, Atherstone.

WHEATLEY HILL.—March 21.—For building 12 aged miners' cottages, at Wheatley Hill. Mr. Welsh, architect, 1, Gowland Terrace, Wheatley Hill, co. Durham.

WILLESBOROUGH.—March 28.—For the following works at the Isolation Hospital, Willesborough, for the East Ashford Rural District Council, viz.: (1) Installation of electric lighting, including the necessary fittings, lamps, and wiring; (2) erection of bathrooms and structural alterations in connection therewith, providing and fixing of new bath in existing bathroom; (3) installation of hot-water apparatus; (4) decoration and painting of the wards and general woodwork; (5) plastering and decoration of the wards of No. 1 block; (6) provision and fixing of new entrance gates. The Surveyor's Office, Albemarle Road, Willesborough, Kent.



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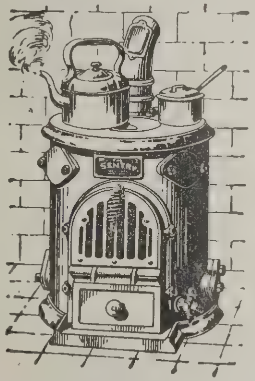

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Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
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Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	6 in.	Iron 4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
⅜-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super.
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	4 Panel	2in. 4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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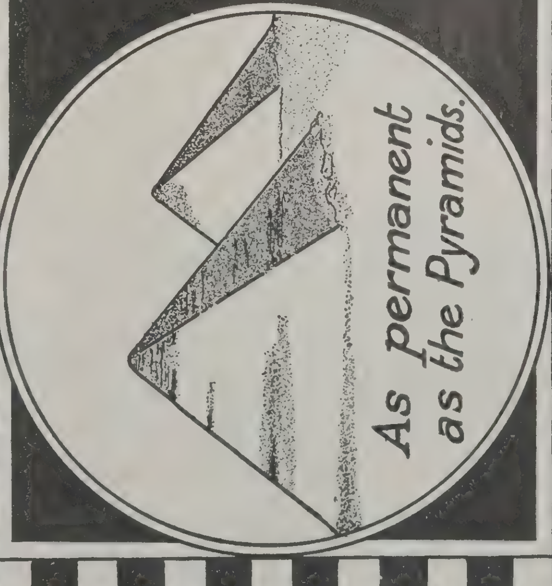

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

	Per Square	
ROOFING	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Owt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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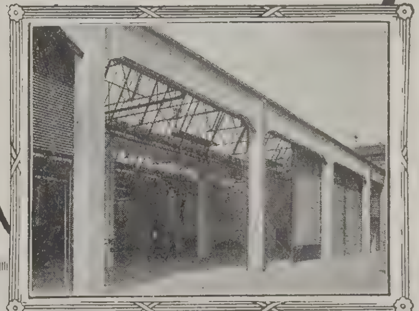

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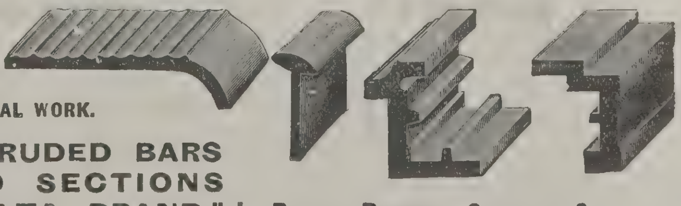

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10½	0/8½	1/0½	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0

Add for:—

Moulded work ..	Add 20 per cent. to the above prices.
Carved work ..	Add 150 per cent. to the above prices.
Party colours ..	Add 2*d*. per yard super.
Stippling ..	Add 2*d*. per yard super.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Stain	Varnish	Flatting	Enamel
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

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On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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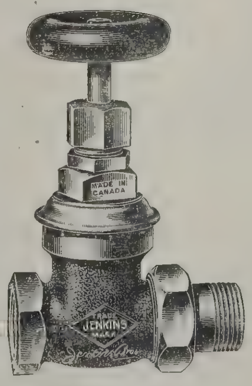

Fig. 308
Gunmetal Radiator Gate Valve with union and wood wheel.

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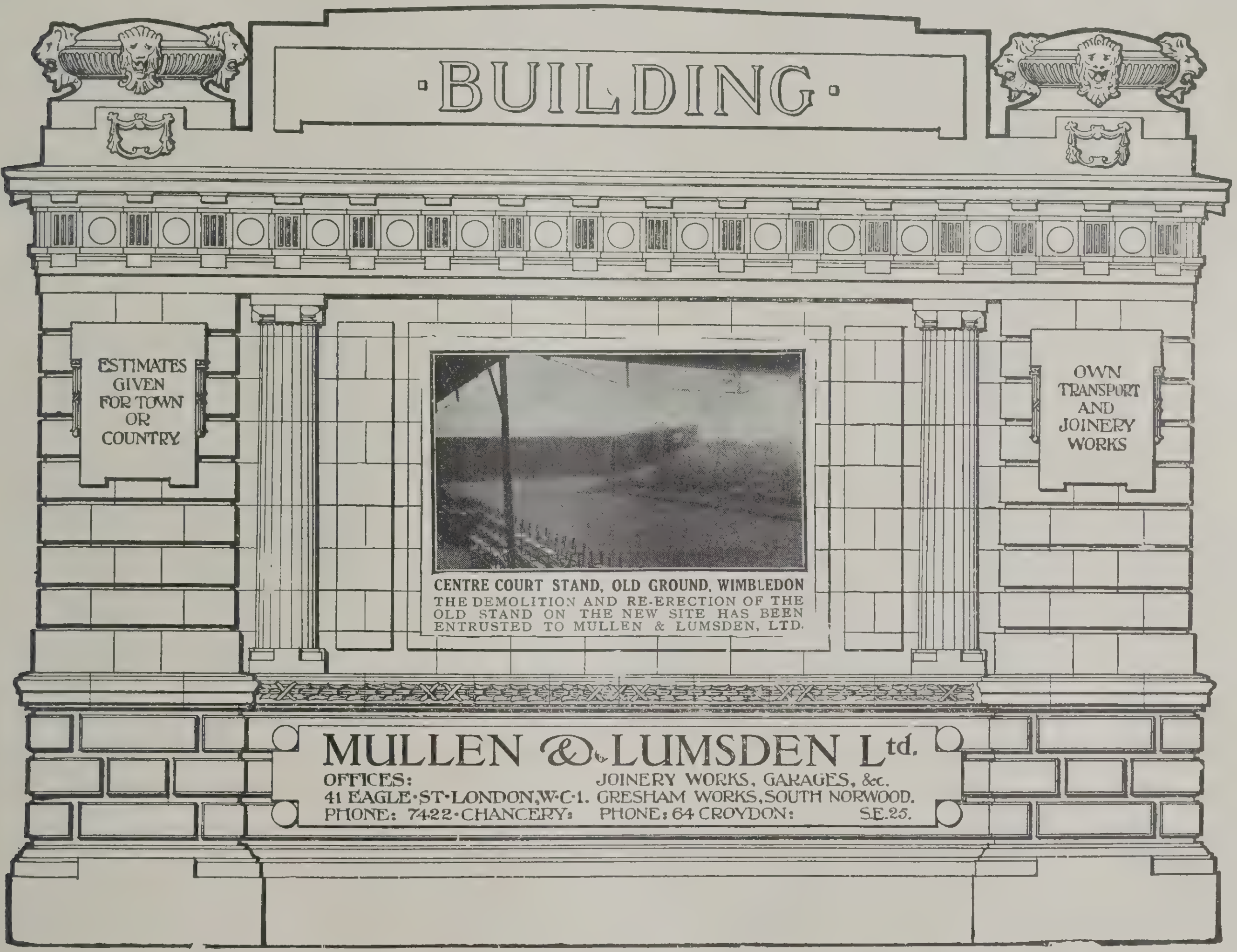

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	–17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1½″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	38/0	Per cwt.
	Ditto	Pipe	38/6	Ditto
	Ditto	Soil	41/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	430/0	Per 1,000
	Ditto	14″ × 9″, ditto	220/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super.

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THE ARCHITECT

FOUNDED 1869.
Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

FRIDAY, MARCH 23, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

NOTICE.

Next Friday being Good Friday, THE ARCHITECT *will be published on Thursday. All advertisements intended for this Number must reach the Office not later than 5* P.M. *on Tuesday, March 27.*

No alteration of advertisement copy can be allowed after Saturday morning, March 24.

CONTRACTS OPEN.

BARNSTAPLE.—March 28.—For erection of a drying chamber in the laundry at the Institution, Alexandra Road, for the Guardians. Mr. M. Sykes, clerk, 23, Castle Street, Barnstaple.

BARRY.—April 4.—For erection of 36 parlour type maisonettes at Jenner Road, for the Urban District Council. Deposit £2. Mr. E. R. Hinchsliff, F.S.I., architect and town-planning surveyor, Public Offices, Barry, Wales.

BIRMINGHAM.—March 27.—The Public Works and Town Planning Committee are prepared to receive tenders for the erection of non-parlour type houses under the following contracts: Contract 119, Burlington Road, Small Heath, 38 houses. Contract 127, Perry Common Road, Erdington, 120 houses. Contract 128, Tyseley, 74 houses. Deposit £1 1s. for each contract. Send applications by March 27 to Mr. H. H. Humphries, M.Inst.C.E., city engineer, Town Hall, Birmingham.

BRISTOL.—March 28.—For provision and fixing of two fire escape staircases at Stapleton Institution. Mr. T. S. Lamb, clerk, St. Peter's Hospital, Bristol.

CARDIFF.—April 5.—For the demolition of twelve shops, one public-house and other property and clearing the site of the Duke Street improvement works, for the Town Council. The City Engineer, City Hall, Cardiff.

CHANDLER'S FORD.—March 29.—For erection of a police cottage at Chandler's Ford, for the Hants County Council. Deopsit, £1 1s. Mr. A. L. Roberts, county architect, The Castle, Winchester.

CHURWELL.—For the masons' and bricklayers' work required in the formation of War Memorial Gardens. Messrs. T. A. Buttery & Son, architects, Queen Street, Morley.

CLECKHEATON.—March 26.—For all trades in erection of 22 houses of the scullery type, in Cleckheaton, for the Spenborough Urban District Council. Deposit £1. Mr. A. Rothera, surveyor, Public Offices, Liversedge.

DERBY.—March 28.—For erection of nine pairs of non-parlour type houses in Osmaston Park Road, for the Corporation. Deposit £1 1s. Mr. C. A. Clews, borough surveyor, Babington Lane, Derby.

ECCLESALL.—March 27.—For supply of materials and works required in rebuilding of transformer store and drying-out shop in Ellin Street, also of a transformer sub-station in Banner Cross Road, Ecclesall, for the Sheffield Electric Supply Committee. Mr. S. E. Fedden, M.I.C.E., etc., general manager and engineer, Commercial Street, Sheffield.

GLASGOW.—March 28.—For the following works for the District Committee of the First or Upper District of the County of Renfrew, viz. :—Excavator, brick and mason, carpenter, joiner and ironmonger; slater and roughcast, plumber and gasfitting, plaster and glazier of 28 houses (10 blocks) to be erected at Harvey Street, Yoker. Deposit £1 1s. Mr. J. A. M'Callum, district clerk, 15, West George Street, Glasgow, or Mr. J. M. Dow, architect, County Buildings, Paisley.

HALIFAX.—For the following works, viz. :—Detached house at Holmfield; garages and stabling in the centre of the town. Messrs. Jackson & Fox, 7 Rawson Street, Halifax.

HARRIS.—March 30.—For the brick, carpenter, joiner, slater, plumber, plasterer and painter work of premises to be erected at Tarbert, Harris, for the Bank of Scotland. Mr. D. Cattanach, architect, County Buildings, Lochmaddy.

HAY, BRECON.—For erection of a small isolation hospital for smallpox cases, near the present Isolation Hospital at Hay, for the Hay Urban District Council, and Hay, Bredwardine and Painscastle Rural District Councils. Deposit 10s. 6d. Mr. H. Gilby, surveyor, Hay, Brecon.

LLANELLY.—April 7.—For erection of 60 parlour-type houses on the Llanerch site in blocks of two, as follows, for the Town Council, viz. :—Group No. 1, 10 houses; group No. 2, 10 houses; group No. 3, 12 houses; group No. 4, 14 houses; group No. 5, 14 houses. Deposit £2. The Borough Surveyor's Office, Town Hall, Llanelly.

MANCHESTER.—March 26.—For alterations to the Nurses' Home at Monsall Hospital, for the Public Health Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MARYHILL.—March 31.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of an employment exchange at Maryhill. Deposit £1 1s. H.M. Office of Works, 4 Dunlop Street, Glasgow, or architect, H.M. Office of Works, 44, Drumsheugh Gardens, Edinburgh.

NEWLYN.—March 31.—For building a dwelling-house in Trewarveth Street, for Mr. J. Davies. Mr. H. Maddern, 11, Morrab Road, Penzance.

NORTH ORMESBY.—March 27.—For various structural works to the North Ormesby Hospital (alterations and extensions to St. Cuthbert and St. Vincent's wards). Mr. J. Forbes, L.R.I.B.A., architect, 19, Grange Road West, Middlesbrough.

PENZANCE.—April 4.—For alterations to 42, Tolver Road. Mr. A. J. Nicholls, 37 Morrab Road, Penzance.

PONTEFRACT.—For whole or separate trade in erection and completion of business premises, house, shop and outbuildings, Toll Hill, Pontefract. Deposit £2 2s. Mr. F. Scatchard, M.S.A., architect and surveyor, Midland Bank Chambers, Castleford.

SEAHAM COLLIERY.—April 4.—For carrying out alterations to station buildings at Seaham Colliery, Durham, for the London and North Eastern Railway Co. Mr. S. Wilkinson, architect, North-Eastern Area, Irving House, Westgate Road, Newcastle-on-Tyne.

STANNINGLEY.—For extensions to Varley Mills, for the Leigh Mills Co., Ltd. Mr. W. Shackleton, architect, Manor House Street, Pudsey.

SWANSEA.—April 3.—For the construction of two public conveniences at Langland Bay and Welcome Lane, for the Town Council. Deposit £2 2s. Mr. J. R. Heath, borough engineer and surveyor, Guildhall, Swansea.

THURNSCOE.—March 27.—For supply of materials and provision of labour in erection of a caretaker's cottage and other appurtenant works near the present cemetery in South Field Lane, for the Urban District Council. Mr. T. Bull, architect, Council Offices, Thurnscoe, Yorks.

WEST BRIDGFORD.—For extensions to Wesleyan Sunday School premises situate in Patrick Road. Mr. A. E. Lambert, architect, 23 Park Row, Nottingham.

WEST HARTLEPOOL.—April 4.—For carrying out improvements at West Hartlepool Passenger Station, for the London and North Eastern Railway Co. Mr. S. Wilkinson, architect, North-Eastern Area, Irving House, Westgate Road, Newcastle-on-Tyne.

WEYMOUTH.—March 29.—For construction of the following works, for the Town Council, viz. :—Tennis pavilion, Melcombe Regis Gardens; conveniences, Melcombe Regis Gardens; tennis pavilion, Greenhill Gardens; and extension of conveniences, Greenhill Gardens. Mr. G. H. Whitaker, A.M.I.C.E., borough engineer and surveyor, Municipal Offices, Weymouth.

WORCESTER.—April 3.—The Housing Committee invite lump sum tenders for erection of 42 houses of the A type on the Bromyard Road site. Tenders are required for blocks of two and four, and may be submitted for any number of blocks. Mr. W. Ranson, M.I.C.E., city surveyor, Guildhall, Worcester.

YOKER.—March 28.—The District Committee of the First or Upper District of the County of Renfrew invite tenders for the following works, viz. :—Excavator, brick and mason, carpenter, joiner and ironmonger; slater and rough-cast plumber and gasfitting, plaster and glazier, of 28 houses (10 blocks), to be erected at Harvey Street, Yoker. Deposit £1 1s. Mr. James M. Dow, architect, County Buildings, Paisley.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height . .	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast .. .. .. Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½*d.*
Flat joint in cement (struck) and lime whiting		1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost ..	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0
		To Elevation generally	
Portland stone and all labours of usual character		20/0	
Bath stone ditto		10/0	

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

C.M.A.

In January 1899, twenty-four years ago, the first meeting of the **Cable Makers' Association** was held. In hundreds of meetings held since then it has studied the technique and organization of its industry.

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- Liverpool Electric Cable Co., Ltd.
- The London Electric Wire Co. and Smiths, Ltd.
- Siemens Brothers & Co., Ltd.
- St. Helens Cable & Rubber Co., Ltd.
- Union Cable Co., Ltd.
- Western Electric Co., Ltd.

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

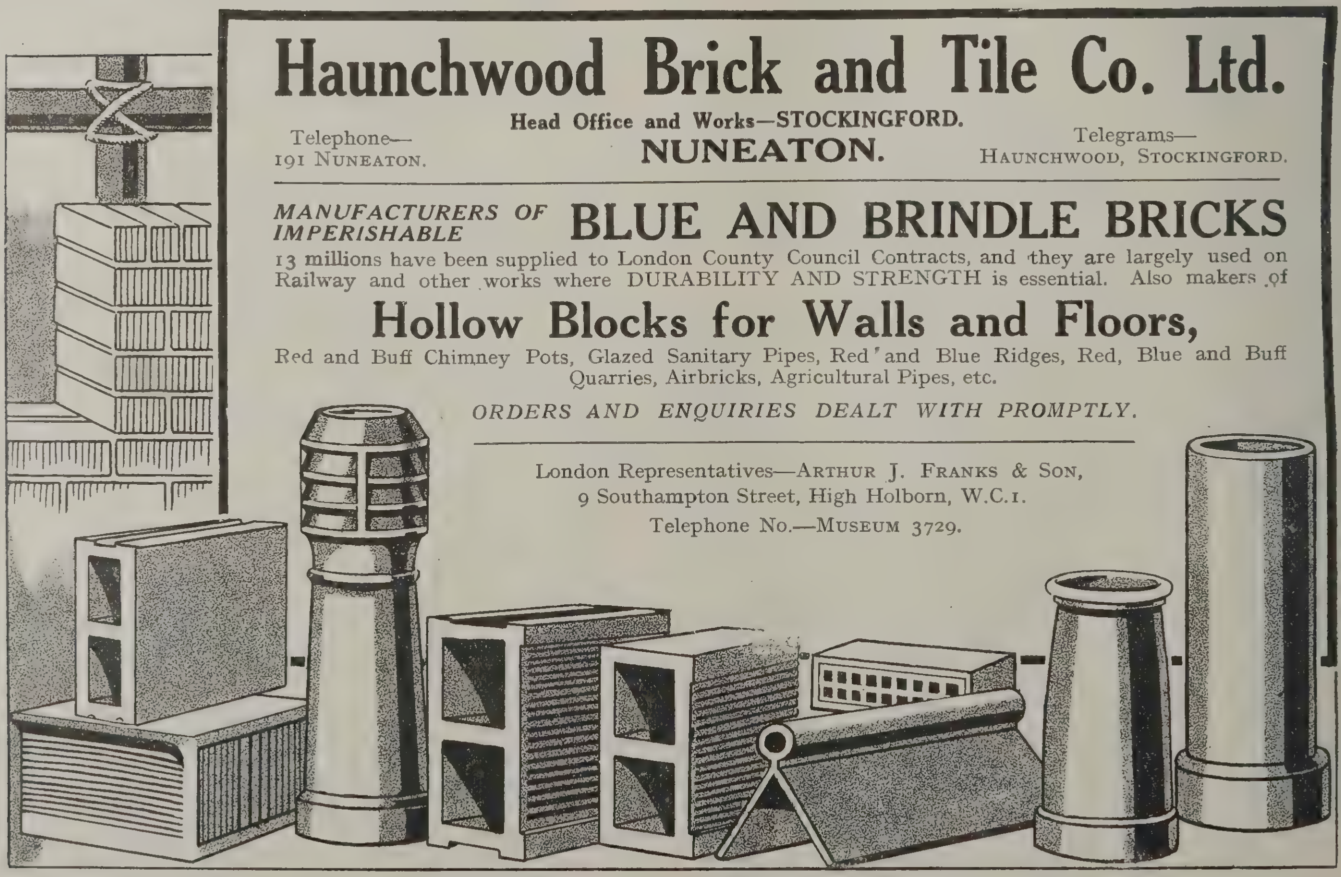
Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.		
	Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3



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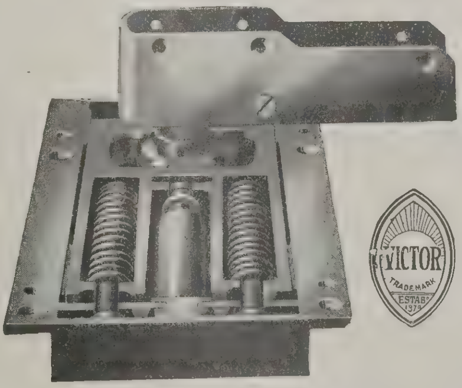

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2¼	0/3¼	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2¼	0/3¼	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3/16in.	¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colours	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1¼	0/2	0/2¼	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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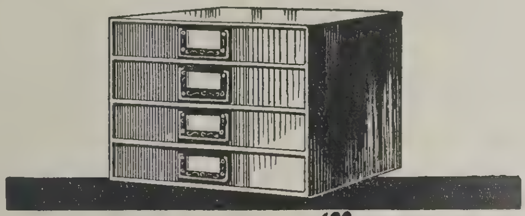

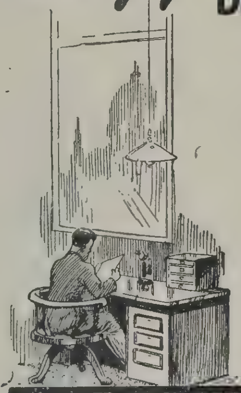

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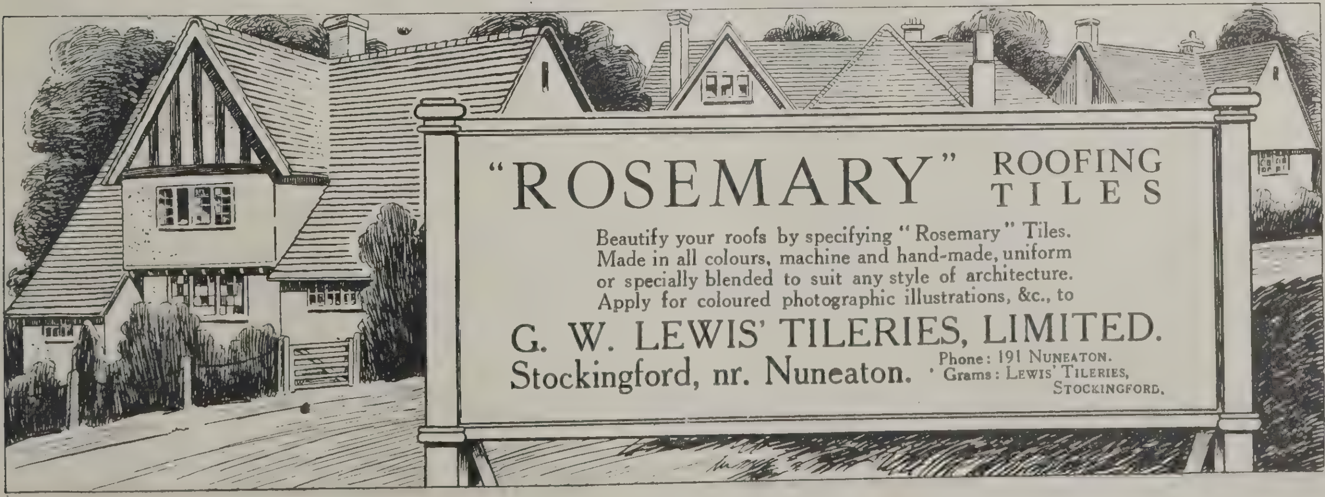

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	.. Pipes, iron, 2″ ..	2/6	Per yard
	Asbestos ..	.. Sheeting	1/9	Ditto
	Ditto ..	.. Ditto, corrugated ..	3/6	Ditto
	Aluminium	.. Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast ..	.. Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	.. Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	.. Brass	5/6 7/9 13/4	each
	Brick ..	.. Broken	10/6	Per yard cube d/d
	Ditto ..	.. Hardcore	5/0	
	Bricks ..	.. Blue, wirecuts ..	145/6	
	Ditto ..	.. Ditto, pressed ..	185/6	Per 1,000 F.O.R. London
	Ditto ..	.. Firebricks	223/0	
	Ditto ..	.. Fixing, breeze ..	80/0	
	Ditto ..	.. Flettons	55/0	
	Ditto ..	.. Reds	140/0	
	Ditto ..	.. Rubbers	265/0	
	Ditto ..	.. Stocks	92/6	Delivered
	Ditto ..	.. White	120/0	F.O.R. London
	Ditto	.. White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	.. Ditto headers ..	430/0	
	Ditto ..	.. 2nd quality	20/0	Per 1,000 less
	Breeze ..	.. Coke	10/6	Per yard cube d/d
	Ditto ..	.. Pan	5/6	
C	Cartage ..	.. Of Bricks, blue ..	12/6	Per 1,000 from rail to job.
	Ditto ..	.. Of ditto, Flettons ..	9/0	
	Ditto ..	.. Of ditto, glazed ..	15/0	
	Cement ..	.. Keenes	105/0	Per ton delivered
	Ditto	.. Portland	58/0	
	Ditto	.. White, ditto	312/0	
	Copper	.. Nails	1/4	Per lb.
	Ditto	.. Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	.. Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto ..	.. Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto ..	.. Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	.. Pipes	5/0 7/9	Per yard delivered
	Driers ..	.. For paint	60/0	Per cwt.
E	Enamel ..	.. White, best	25/0	Ditto, per gallon
F	Felt ..	.. Roofing	10/7	Delivered, per square
	Fireclay ..	.. Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring ..	.. Deal, P.E.	26/0 33/0	Per square delivered
	Ditto ..	.. Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	.. Tubes, Standard list ..	— 55%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 50%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	.. Ditto 3 ditto ..	2/2½	
	Ditto ..	.. Ditto 5 ditto ..	2/11	
	Ditto ..	.. Ditto 7 ditto ..	3/4	
	Ditto ..	.. Ditto 10 ditto ..	3/7	
	Ditto ..	.. Ditto 25 ditto ..	3/9½	
	Ditto ..	.. Ditto 100 ditto ..	4/7	
	Ditto ..	.. Sheet, 15 oz. ..	3⅝*d.*	
	Ditto ..	.. Ditto 21 oz. ..	5½*d.*	
	Ditto ..	.. Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	.. Rough cast ¼″ ..	6¾*d.*	
	Ditto ..	.. Wired, cast	10½*d.*	
	Ditto ..	.. Figured, rolled ..	8*d.*	
	Ditto ..	.. Flemish or Arctic ..	8*d.*	
	Ditto ..	.. Lead lights in plain sheet squares	2/0	
	Gold leaf ..	.. English	2/9	Per book
	Gold size	.. Best	20/0	Per gallon
	Granite ..	.. Chippings ..	28/0	Delivered, per yard
	Ditto	.. Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire ..	.. Horse, cart and man ..	25/0	Per day
	Ditto ..	.. Lorry and driver ..	80/0	Ditto
	Ditto ..	.. Steam roller .. .. Water cart and men ..	100/0	Ditto
	Ditto ..	.. Sacks	3*d.*	Each
	Hot water	.. Tubes, Standard list	— 50%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 45%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 37½%	Ditto
J	Joists ..	.. Steel, rolled	260/0	Per ton delivered
	Ditto ..	.. Wood, soft, 9″×3″ ..	3/9	Per foot cube delivered
	Ditto ..	.. Ditto, ditto, 7″×2½″	3/2	
	Ditto ..	.. Ditto, ditto, 6″×2″ ..	3/0	
K	Knotting ..	.. ..	35/0	Per gallon
L	Lathing ..	.. Metal	1/0	Per yard
	Ditto ..	.. Wood, sawn	3/9	Per bundle
	Lead ..	.. Sheet	38/0	Per cwt.
	Ditto ..	.. Pipe	38/6	Ditto
	Ditto ..	.. Soil	41/0	Ditto
	Ditto ..	.. White	58/9	Ditto
	Lime ..	Grey stone	51/3	Per ton
	Ditto ..	.. Blue lias	58/6	Ditto
M	Mahogany	.. Honduras	19/0	Ft. cube
	Ditto ..	.. Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching ..	.. Deal, T. G. & B. ..	18/0 21/0 28/0	Per square delivered
N	Nails ..	.. Brads, floor	22/9	Per cwt. delivered
	Ditto ..	.. Cut clasp	23/0	
	Ditto ..	.. Lath	31/0	
	Ditto ..	.. Wire, oval	26/0	
O	Oak ..	.. American	14/0	Per foot cube delivered
	Ditto ..	.. English	13/0	
	Ditto ..	.. European	21/0	
	Ditto ..	.. Japanese	20/0	
	Oil ..	.. Linseed, boiled ..	4/1	Per gall.
	Ditto ..	.. Ditto, raw	3/10	ditto
P	Paint ..	.. Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	.. Breeze	2/3 3/0	Per yard sup. d/d
	Plaster ..	.. Paris, coarse	70/0	Per ton delivered
	Ditto ..	.. Sirapite ,, ...	70/0	
	Ditto ..	.. Slabs, ceiling	2/3	Per yard
	Putty ..	.. Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	.. Gutters, O.G. ..	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto ..	.. Pipes, round	2/0 2/11	
	Roofing, iron	.. Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	.. Ordinary	13/0	Per yard cube d/d
	Ditto ..	.. Washed	14/0	
			No. 8 No. 10	
	Sash ..	.. Lines, flax	3/8 4/6	Per knot
	Ditto ..	.. Weights, iron ..	12/0	Per cwt.
	Ditto ..	.. Ditto, lead	40/0	Ditto
	Size ..	.. Best	5/6	Per fkn.
	Slates ..	.. 20″×10″, Welsh ..	430/0	Per 1,000
	Ditto ..	.. 14″×9″, ditto	220/0	Ditto
	Soil pipes	.. L.C.C., iron, 4″ ..	4/4	Per yard
	Solder ..	.. Plumbers'	8½*d.*	Per lb.
	Steam ..	.. Tubes, Standard list ..	—45%	Delivered
	Ditto ..	.. Fittings, ditto ..	—40%	Ditto
	Ditto ..	.. Tubes, galvanised ..	—27½%	Ditto
	Steel ..	.. Angles	14/6	Per cwt.
	Ditto ..	.. Bolts	36/0	Ditto
	Ditto ..	.. Joist	13/0	Ditto
	Ditto ..	.. Stanchions	17/0	Ditto
	Stone ..	.. Bath	4/2	Per foot cube d/d
	Ditto ..	.. Portland	5/8	
	Ditto ..	.. York	6/9	
T	Tar ..	.. Stockholm	1/0	Per gallon
	Teak ..	.. Eng.	12/0	Per foot cube d/d
	Ditto ..	.. Moulmein	19/0	
	Terebine ..	.. ..	13/6	Per gallon
			2″ 4″	
	Thimbles ..	.. Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	.. Plain, roofing ..	120/0	Per 1,000
	Ditto ..	.. 6″×6″, white glazed ..	12/6	Per yard
	Timber ..	.. Deal, joinery	5/9	Per foot cube d/d
	Ditto ..	.. Ditto, Carpenters'	3/6	
	Ditto ..	.. Slating battens ..	3/0	Per 100 feet
			1½″ 2″	
	Traps ..	.. Cast, lead, S.	3/0 4/3	Each
	Ditto ..	.. Ditto, P.	2/4 3/5	Ditto
	Turpentine	..	9/3	Per gallon
			½″ ¾″ 1″	
U	Unions ..	.. Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves ..	.. Ball	5/6 7/9 13/4	Each
	Varnish ..	.. Hard, oak	15/0	Per gallon
	Ditto ..	.. Copal	17/0	Ditto
	Ditto ..	.. Flat	16/0	Ditto
W	Whiting ..	.. Gilders'	3/0	Per cwt.
	Wire ..	.. Guards, galvd. ..	2/6	Per foot super
			2″ 4″	
	Ditto ..	.. Balloon, ditto, ditto ..	5*d.* 6*d.*	Each
	Ditto ..	.. Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	.. Sheeting ..	40/0	Per cwt.
	Ditto ..	.. Ditto, perforated ..	4*d.*	Per foot super

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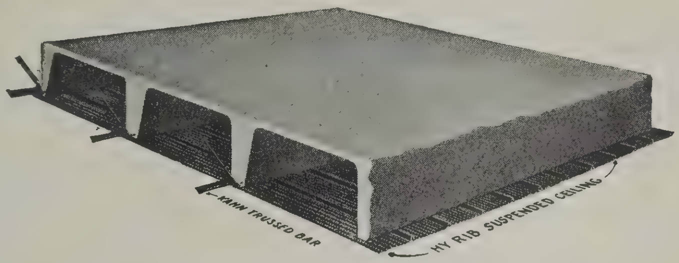

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Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
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◆

FRIDAY, MARCH 30, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than* 2 P.M. *on Wednesdays.*

CONTRACTS OPEN.

BARROW-IN-FURNESS.—April 3.—For construction of two ferro-concrete bridges in the public park, for the Corporation. Borough Engineer's Office, Town Hall, Barrow-in-Furness.

CARDIFF.—April 6.—For repairs, renovations, &c., at seven houses in Canton, Cardiff, for the Guardians. Mr. R. Stephenson, clerk, 11, Park Place, Cardiff.

CRONDALL.—For erection of a small detached house at Condall, Hants, for Miss E. Stevens. Messrs. Friend and Lloyd, architects, Aldershot.

DOBWALLS, CORNWALL.—March 31.—For mason's work in erection of five cottages at Dobwalls for Mr. E. Henwood. Mr. H. R. Venning, L.R.I.B.A., architect, Greenbank Lane, Liskeard.

DORKING.—For some additions and alterations to the existing administrative buildings, etc., for the Dorking Joint Isolation Hospital Committee. Deposit £2 2s. Mr. W. Shearburn, architect, 39, South Street, Dorking, or at the Hospital near Logmore Lane, Westcott.

DUMBARTON.—The Western District Committee are about to invite tenders for the following works required in connection with the erection of ten blocks of twenty-six houses at Alexandria adjacent to the first development—viz.: (1) excavator and brick work; (2) carpenter and joiner work; (3) glazier work; (4) slater and roughcast work; (5) plumber work; (6) plaster work; (7) drainage, paths, and laying out of ground. Deposit £1 1s. for each schedule. Mr. Joseph Weekes, architect, 88, College Street, Dumbarton.

EDINBURGH.—April 3.—The Magistrates and Council invite Tenders—in three separate contracts—for the several works required in connection with the erection of 108 houses at Gorgie, as follows: brick, carpenter and joiner, glazier, slater, plaster and plumber works. Mr. James A. Williamson, A.R.I.B.A., city architect, City Chambers, Edinburgh.

GORTON.—April 4.—For setting back wall and rebuilding wash-house in Kirkmanshulme Lane, Gorton, for the Manchester Improvement and Buildings Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

HANDSWORTH.—April 5.—For erection of forty-three houses on the Park Lane site at Handsworth, for the Estates Committee of the Sheffield City Council. Deposit £2. Mr. F. E. P. Edwards, city architect, Town Hall, Sheffield.

HARROGATE.—April 9.—For erection of stables at the gasworks, Ripon Road, for the Harrogate Gas Company. Mr. F. H. Robinson, A.M.I.C.E., engineer, Gas Office, James Street, Harrogate.

HASTINGS.—April 21.—For pulling down the East Sussex Hospital on the sea front, for the Corporation. Mr. P. H. Palmer, M.I.C.E., borough engineer, Town Hall, Hastings.

KNOTTINGLEY.—April 1.—For all trades, excepting painting, in erection and completion of villa residence at Knottingley, for Mr. T. Jackson. Deposit £2 2s. Mr. J. R. Earnshaw, architect and surveyor, Cliffe Street Chambers, Bridlington, or at the Headlands Glass Works, Knottingley.

LEICESTER.—For the construction of factory extension at North Evington, Leicester, for James Percival & Co., boot manufacturers. Deposit £2 2s. Messrs. Robey E. Carpenter & Son, quantity and measuring surveyors. Palace Chambers, Leicester.

LLANHARAN.—April 9.—For building 122 dwelling-houses at Llanharan for the Llantrisant and Rhymney Valley Housing Co., Ltd. Plans and specification can be seen at 30, Charles Street, Cardiff, or at the Court Estate Office, Pencoed. Sealed and endorsed tenders to be sent to Mr. E. L. Hann, Aberaman Offices, Aberdare, by April 9. Messrs. G. Kenshole and W. Evans & Sons, joint architects.

LLANWRTYD.—April 12.—For widening Llanwrtyd Bridge in masonry, for the Breconshire County Council. Deposit £2 2s. Mr. W. L. Harpur, county surveyor, County Hall, Brecon.

LONDON.—For erection of eight garages around the London area each having accommodation for fifty double-decked all-weather motor omnibuses. Mr. E. G. W. Souster, F.R.I.B.A., 3, St. James's Street, S.W.

LONDON.—April 10.—For erection and completion of a sports pavilion in the Bishop's Park, Fulham, for the Fulham Borough Council. Deposit £1. The Borough Engineer, Town Hall, Fulham, S.W.6.

LONDON.—April 10.—The Commissioners of His Majesty's Works invite tenders for the supply and delivery of electric light fittings (ceiling type) for the New Science Museum. The Contracts Branch, H.M. Office of Works, etc., King Charles Street, Westminster, S.W.1.

MANCHESTER.—April 11.—The Electricity Committee of the Manchester Corporation are prepared to receive tenders for the erection of a complete building, including foundations, steelwork, drains, machine foundations, etc., for the new Chorlton-on-Medlock Sub-station. Deposit £2 2s. Mr. F. E. Hughes, secretary, Electricity Department, Town Hall, Manchester, or Mr. S. L. Pearce, chief engineer and manager, Dickinson Street, Manchester.

MIRFIELD.—April 9.—For all trades in erection of twelve houses in pairs on the Nettleton Road site, for the Urban District Council. Deposit £1. Mr. E. Gill, Council Offices, Mirfield.

NEATH.—April 6.—For the following work at the Neath Working Men's Club Premises, High Street: (1) extension to billiard room and alterations; (2) painting and general repairs. Mr. J. Cook Rees, architect, Parade Chambers, Neath.

NEWPORT, I.W.—April 2.—For the work required in adapting buildings at the County Hall for use as a clinic, for the Isle of Wight County Council. Mr. S. R. Cocks, county surveyor, St. Thomas Street, Ryde.

PENARTH.—For erection of a house in Augusta Road, Penarth. Deposit £2 2s. Mr. S. Latour Hordle, architect and surveyor, 67, Queen Street, Cardiff.

PRESTWICH.—April 10.—For construction of ten semi-detached parlour type houses on the Council's Rectory site, for the Urban District Council. The Surveyor, Town Hall, Prestwich.

PLYMOUTH.—For internal alterations at the East End Constitutional Club, Alma Place. The Secretary.

SLOUGH.—For alterations and additions to 124, High Street, Slough. Messrs. Timothy White Co., Ltd. (Construction Department), 30, Chandos Street, Portsmouth.

ST. NINIANS.—April 9.—Contract No. 2.—For the concrete, brickwork, earthwork, etc., necessary in the construction of a storage tank of 500,000 gallons capacity near Sauchie, in the parish of St. Ninians, in county of Stirling, for the Stirlingshire and Falkirk Water Board. Mr. Charles Massie, engineer to the Board, Falkirk.

WARTON.—April 3.—For building an engine-house and driver's cottage, and for other work in connection therewith, at Warton, in the Parish of Polesworth, for the Atherstone Rural District Council. Deposit £2. Mr. H. J. Coleby, engineer and surveyor, 102, Long Street, Atherstone.

Mr. Cecil Eprile, A.R.I.B.A., has removed his offices from Gray's Inn, to 74, Eccleston Square, Westminster, S.W.1. Telephone, Victoria 9589.

The death occurred on March 24, at a nursing home, Barnet, after a short illness, of Mr. George Waymouth, F.R.I.B.A., of 32, Theobald's Road, and late of Finchley, aged 78.

The Prizes and Studentships Pamphlet of the R.I.B.A. has just been published and is on sale at the Royal Institute, 9 Conduit Street, W.1, price one shilling exclusive of postage. Prizes totalling in value nearly £2,000 are offered for the current year. The pamphlet contains particulars of the R.I.B.A. Essay Prize, the Soane Medallion, the Pugin Studentship, the Owen Jones Studentship, the R.I.B.A. (Henry Jarvis) Studentship at the British School at Rome, the R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association, the R.I.B.A. (Henry Jarvis) ex-Service Studentships at the Recognised Schools, the Grissell Gold Medal, the Arthur Cates Prize, the R.I.B.A. (Archibald Dawnay) Scholarship, the Ashpitel Prize and the R.I.B.A. Silver Medal for Recognised Schools.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0.
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

	Per Ft. Super reduced	
DEMOLITION	In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube		
	To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced		
	Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

	Per Foot Super.	
Damp course	Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

	Per Foot Super.	
Facings	Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½*d.*
Flat joint in cement (struck) and lime whiting		1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.				
	1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube		
	Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube		
	Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

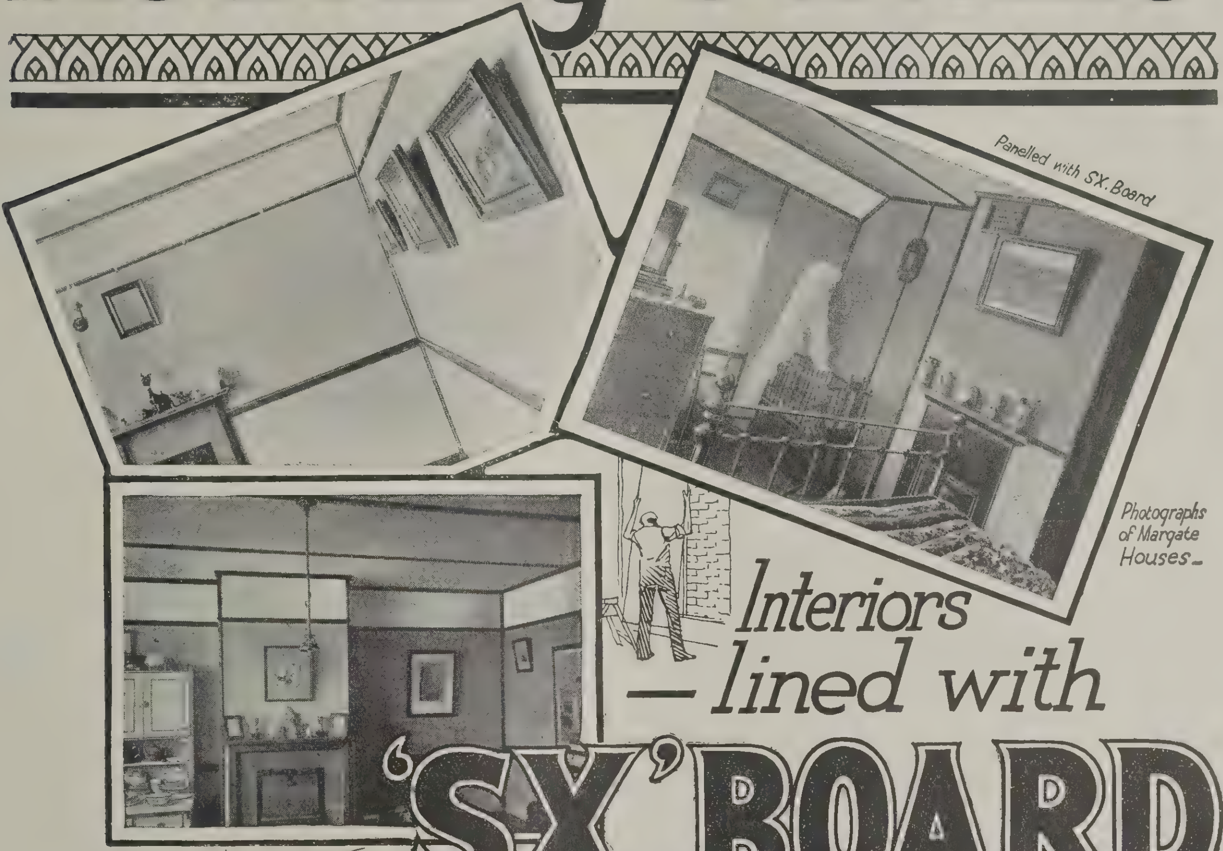
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

	Sectional Area							
Fillets, rails and frames. Per foot run	1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Housing Scheme



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THAMES MILLS, PURFLEET.

S.B.103

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
		2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Per Square Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/3
Fixing soakers	9*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Per Cwt. Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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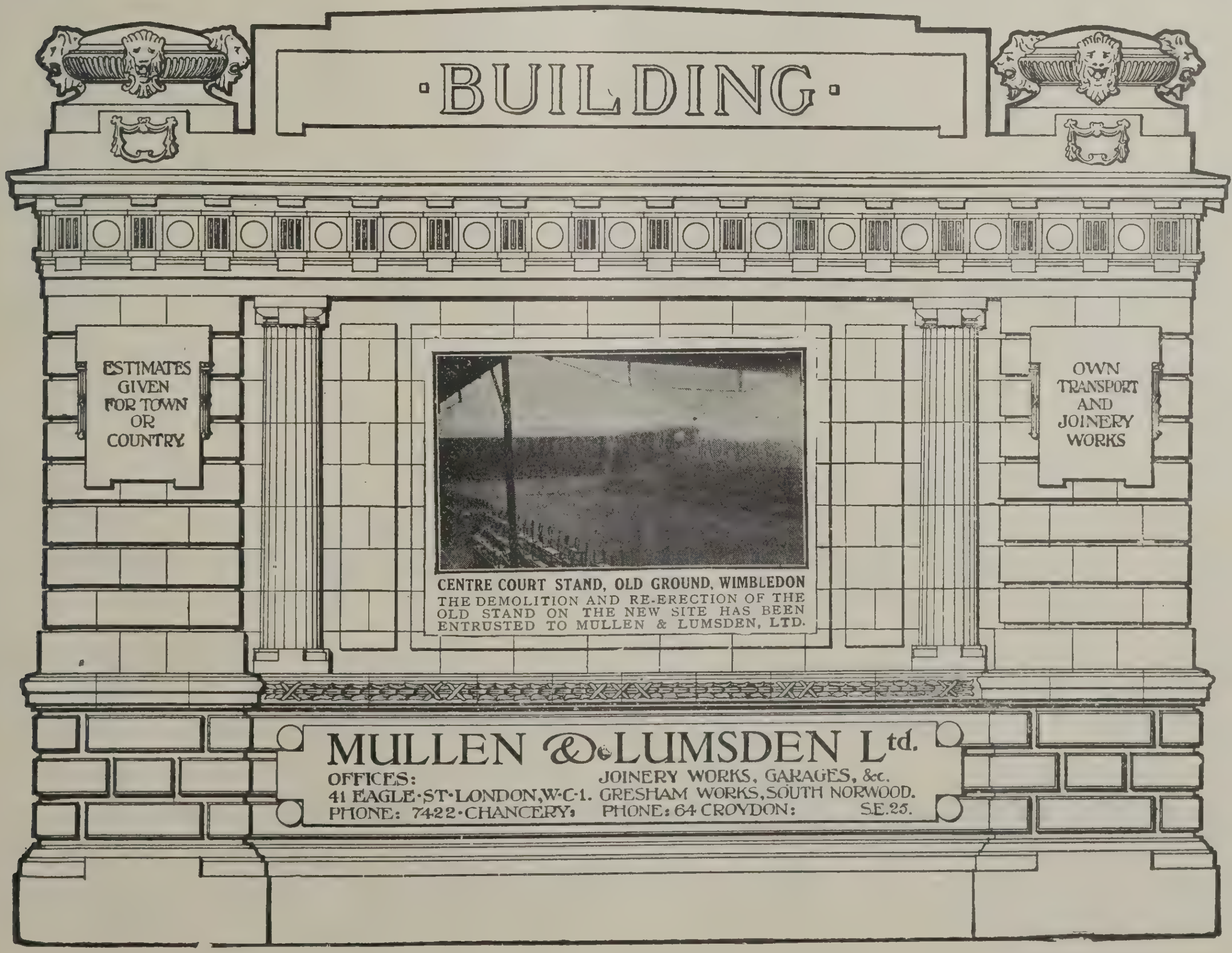
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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1¼	0/6
Do. do. Portland ..	3/3	0/6¼	0/2¼	0/3¼	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3¼	—	—	—	—
Screeding in Portland	2/2	0/4½	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/3	5/10	6/5

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass		Figured Rolled	⅛in. Rolled	Cast Glass		¼in. Wired Cast Glass	Metal bar Patent Glazing
21oz.	15oz.			3/16in.	¼in.		
0/10¾	0/8¼	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats				Size		Per Yard Super			
		1	2	3	4	*Once*	*Twice*	Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes ..	Per Foot Run										
	0/0¼	0/0¾	0/1½	0/2	0/2¼	0/0¼	0/0½	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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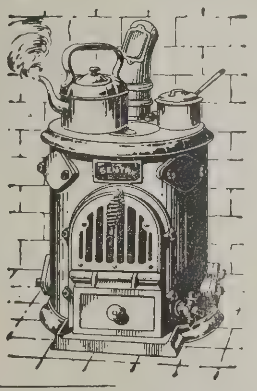
SENTRY Boilers

Because



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As permanent as the Pyramids.

Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	140/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1½"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼"	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	38/0	Per cwt.
	Ditto	Pipe	38/6	Ditto
	Ditto	Soil	41/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. v	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/3 3/0	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	220/0	Ditto
	Soil pipes	L.C.C., iron, 4"	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super.

AUSTRALIA HOUSE.
A. Marshall Mackenzie & Son, FF.R.I.B.A.
Architects.

From an original Etching by
Christopher M. Shiner.

REDPATH BROWN & CO. Ltd.

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THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

FRIDAY, APRIL 6, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ALNWICK.—April 16.—For cementing work, &c., required to be done at the Cattle Market, for the Urban District Council. Mr. J. T. Robson, F.S.I., town surveyor, Green Bat, Alnwick.

BARKING.—April 17.—For erection of public library in Ripple Road, for the Urban District Council. The cubical content of the building is about 160,000 feet. Deposit £10. Mr. C. J. Dawson, F.R.I.B.A., architect, Clock House Chambers, Barking, or Messrs. Gardiner and Theobald, quantity surveyors, 96, Gower Street, London, W.C.

BARNSLEY.—April 10.—For erection of 38 houses and for the construction of the road and sewers on the Ardsley housing site, for the Town Council. The Borough Engineer, Fairfield House Offices, Barnsley.

BIRMINGHAM.—April 9.—For erection of 110 non-parlour type houses at Hall Green, under Contract 129, Unassisted Housing Scheme, for the Corporation. Send applications and £1 deposit by April 9 to Mr. H. H. Humphries, M.Inst.C.E., city engineer, Council House, Birmingham.

BOURNEMOUTH.—April 9.—For erection of dressing rooms, workmen's mess rooms, &c., at Seafield Pleasure Grounds, Southbourne, for the Corporation. Deposit £1 1s. Mr. E. P. Dolamore, F.S.I., borough engineer, Town Hall, Bournemouth.

BRIGHTON.—April 12.—For erection of an electricity substation at Rottingdean Road, for the Corporation. The Borough Surveyor, Town Hall, Brighton.

CARDIGAN.—For erection of a dwelling house at Cardigan. Mr. H. Ladd, auctioneer and estate agent, Cardigan.

CARLISLE.—April 16.—For alterations to the Superintendent Registrar's office at 7 Victoria Place, also for redecorating the whole of the premises, for the Rural District Council. Mr. G. Armstrong, architect, 24 Bank Street, Carlisle.

COLCHESTER.—April 9.—For erection of blocks of six houses (non-parlour type) at the Harwich Road housing site, for the Housing Committee. Mr. H. Collins, A.M.I.C.E., borough engineer and surveyor, Town Hall, Colchester.

COLWYN BAY.—April 14.—For the following works, for the Colwyn Bay and Colwyn Urban District Council, viz. : Contract No. 6—Excavation for and erection of a power house complete. Contract No. 7—Excavation and concrete foundations for a gasholder tank. Deposit £1 1s. Mr. J. Amphlett, clerk, Council Offices, Colwyn Bay.

HERNE BAY.—April 16.—For the construction of a bandstand and shelter of reinforced concrete, consisting generally of decking, sustained by piles, retaining walls, enclosing screen walls and roof, for the Urban District Council. Send application and £2 deposit between April 9 and April 13. Mr. H. Kempton Dyson, consulting engineer, 17 Warwick Square, Westminster, S.W.1.

ILFORD.—April 18.—For erection of seven cottage tenements for firemen at the rear of the fire station in Ley Street, for the Urban District Council. Deposit £2. Mr. H. Shaw, M.I.C.E., engineer and surveyor, Town Hall, Ilford.

IRLAM.—For proposed club premises, Astley Road, for the Irlam Conservative Club Co. Mr. J. E. Kewell, M.S.A., architect, 602 Liverpool Road, Irlam.

KENT.—April 9.—For the erection of a police house at Gordon Avenue, Queenborough, and a police house at Newington, near Sittingbourne, and the enlargement of a police house at Adisham, near Canterbury, for the Kent Standing Joint Committee. The County Architect, 86 Week Street, Maidstone.

LEEDS.—For the various works (except slating) required in the erection of motor garage, offices, showroom, &c., Otley Road. Messrs. F. Mitchell & Sons, architects and surveyors, 9 Upper Fountaine Street, Albion Street, Leeds.

LEEDS.—April 11.—For the construction of an overground transformer chamber in Town Street, Beeston, Leeds, for the Leeds Corporation. Mr. C. N. Hefford, manager, 1, Whitehall Road, Leeds.

LEITH.—April 9.—The War Memorial Committee invite tenders from contractors for the following work Mason and brick, carpenter and joiner, iron and smith, plumber, plaster, slater, tiling and glazier, in connection with proposed addition to children's wing at Leith Hospital, Mill Lane, Leith. Mr. G. Simpson, F.I.A.(Scot.), L.R.I.B.A., architect, 14 Hill Street, Edinburgh.

LISKEARD.—April 9.—For converting a store into a shop, additions to the manager's house, &c., at the gasworks, for the Liskeard Gas Co., Ltd. Mr. H. R. Venning, L.R.I.B.A., Greenbank Lane, Liskeard.

LONDON.—April 11.—For building-up new coke breeze partition, with borrowed lights over (approximately 200 yards super), at St. John's Hospital, St. John's Hill, S.W., for the Guardians. Mr. F. J. Curtis, clerk, St. John's Hill, Wandsworth, S.W.18.

LONDON.—April 14.—For erection of depot buildings at Arragon Road, East Ham, for the East Ham Town Council. Deposit £2. The Borough Engineer, Town Hall, East Ham, E.6.

LONDON.—April 18.—For alterations and additions to administration block and builder's work in connection with heating at the Isolation Hospital, South Ealing, for the Chiswick and Ealing Hospital Committee. Deposit £1 15s. Mr. W. R. Hicks, A.M.I.C.E., borough engineer, Town Hall, Ealing, W.5.

LONDON.—April 19.—The Guardians of the Southwark Union desire to receive tenders from contractors for cleaning, painting and minor repairs, and for the provision of new sinks lavatory basins, wall tiling and maple flooring at the Southwark Hospital, East Dulwich Grove, S.E. Deposit £2. Application to be made on April 9, 10, or 11 to Messrs. A. Saxon Snell & Phillips, architects, 9 Bentinck Street, Manchester Square, W.1.

LONDON.—April 24.—For additions and alterations to the Bruce Grove convenience, for the Tottenham Urban District Council. Deposit £1 1s. The Engineer, Town Hall, Tottenham, N.15.

NEWLYN, CORNWALL.—April 14.—For re-roofing the Primitive Methodist Church at Boase's Street, Newlyn, for the trustees. Mr. H. Maddern, H.R.S. Mines, Lon., architect, 11 Morrab Road, Penzance.

NEWPORT.—April 21.—For erection of a new farmhouse for Llwyngwair Home Farm, Newport, Pem. Mr. G. B. Bowen, Llwyngwair, Newport, S.O., Pem.

PENRITH.—April 9.—For additions and alterations required for the conversion of Wesley Manse, Wordsworth Street, into two houses. Mr. A. Knewstubb, P.A.S.I., architect, St. Andrew's Chambers, Penrith.

PENRITH.—April 9.—For erection of 40 non-parlour houses on the Castle Hill site, for the Urban District Council. Mr. T. H. Longstaff, A.M.I.C.E., engineer and architect, Town Hall, Penrith.

PORT TALBOT.—April 20.—For erection of an extension and additions to the Port Talbot and District General Hospital, for the Building Committee. Deposit £2 2s. Mr. D. L. Evans, architect, Courtland Chambers, Port Talbot.

PURFLEET.—April 16.—For erection of a cottage at the Board's intercepting station at Purfleet, for the Thurrock, Grays and Tilbury Joint Sewerage Board. Mr. C. M. Shiner, architect, "Farley," Whitehall Lane, Grays.

REDHILL.—The Guardians of Reigate Union propose to erect a committee room, &c., at their Institution, St. John's, Redhill. Messrs. T. R. & B. Hooper, architects, Market Hall Buildings, Redhill.

RHOS-ON-SEA.—For erection of a deatched bungalow at Rhos-on-Sea. Mr. D. C. Roberts, Prudential Buildings, 11 Station Road, Colwyn Bay.

SLAITHWAITE.—April 11.—For all trades connected with the erection of eight houses at Lower Wood, for the Slaithwaite Urban District Council. Messrs. Lunn & Kaye, Market Street, Milnsbridge ; Messrs. John Kirk & Sons, Market Place, Huddersfield ; or Messrs. Joseph Berry & Son, Market Place, Huddersfield.

STANLEY.—April 24.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of 40 houses at Stanley, co. Durham. Deposit £1 1s. The Borough Surveyor, Stanley, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

WORKSOP.—For alterations and additions to St. Mary's Schools. Mr. J. Haslam, architect and surveyor, Burton Chambers, Worksop.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅛%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3 9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅓th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced: In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube: To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced: Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super.: Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super.: Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	¼*d.*	¼*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	¼*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.: 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube: Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2¼*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube: Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

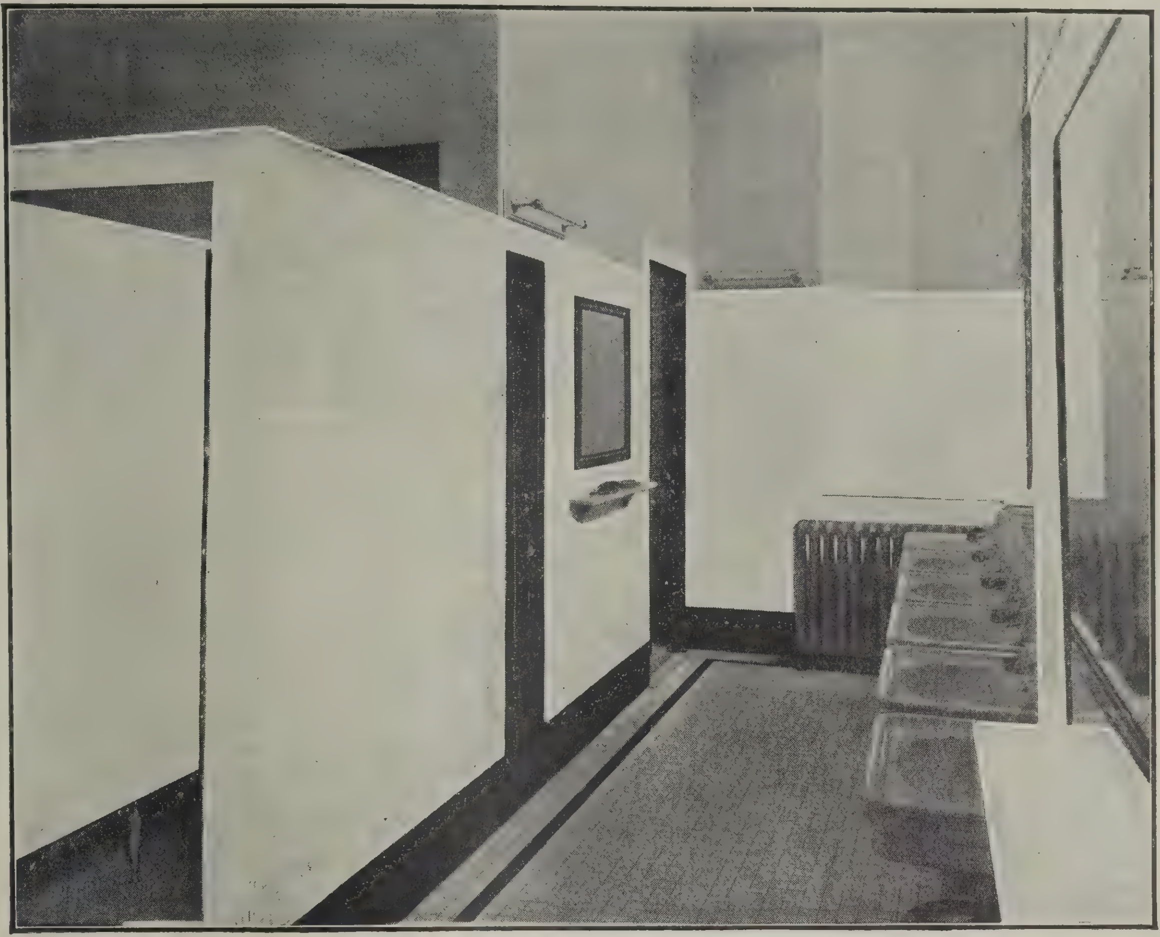
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area: 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.



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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½d.	1d.	½d.	2d.

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4d.	2/0	4d.	6d.	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9d.	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10d.	10d.	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/6	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9d.	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7d. per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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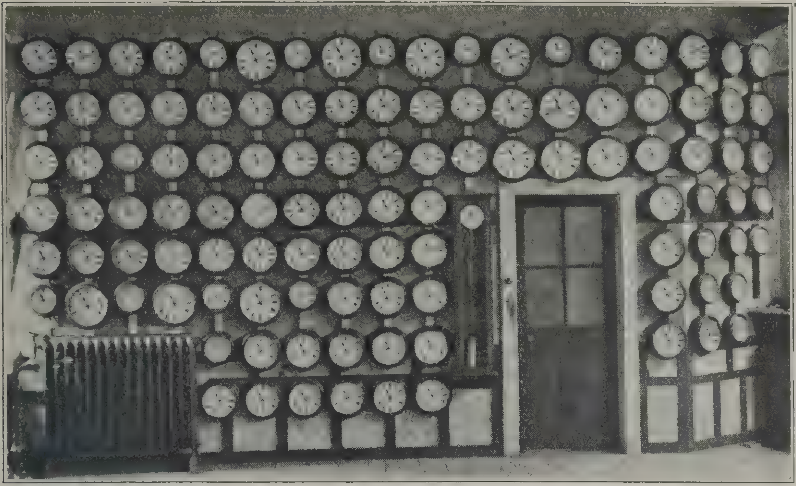

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GILLETT & JOHNSTON

Established 1844. **CROYDON**

Master Clock & 110 Dials

One-Seventh of the Installation of 770 Clocks fitted in the New County Hall, London, 1922

Makers of Tower Clocks (Weight driven or Electric), House Clocks, Carillons and Bells.

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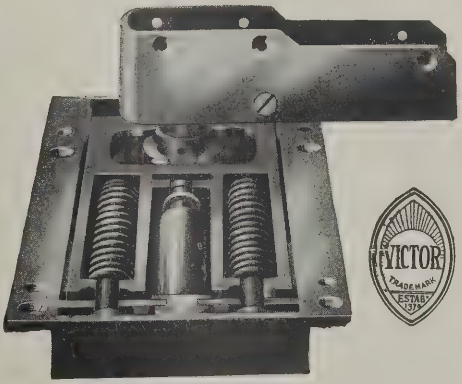
"VICTOR"
Door Springs
and Checks

The **"Victor" Door Springs** and Hinges are by general consent admitted to be the most durable and reliable for all kinds of doors.

The New Shallow "Victor" Double-Action Spring Hinge. Total Depth 1⅜ in.



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All kinds of FITTINGS of QUALITY for Doors and Windows.

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EASTWOODS LIMITED, HEAD OFFICE: 47 BELVEDERE ROAD, LONDON, S.E.1

CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass		Figured Rolled	¼in. Rolled	Cast Glass		¼in. Wired Cast Glass	Metal bar Patent Glazing
21oz.	15oz.			$\frac{3}{16}$in.	¼in.		
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on			If on Narrow Widths
		Small Panels	Medium Panels	Large Panels	
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes ..	Per Foot Run										
	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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MEDIUM, DARK OR MOTTLED
LONDON BRICK Co., LTD.
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They have stood the test for over 100 years.
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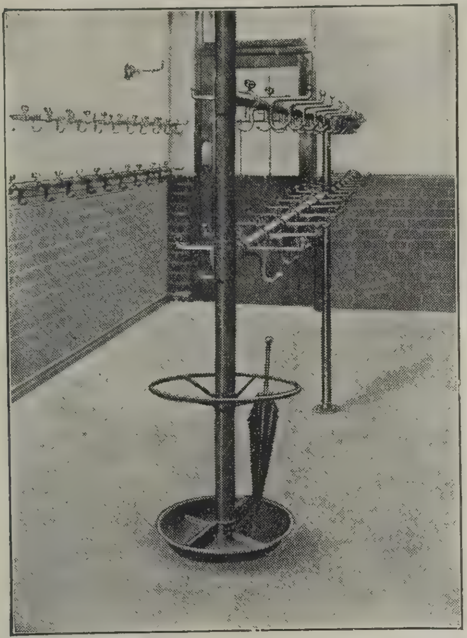

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JOHN TANN LTD-
-the World's leading Safe & Strong-Room manufacturers:

OVER a century and a quarter ago—in the year 1795—an Engineer who realised that something more secure than the oaken, brass-bound "Treasury" chest was needed to cope with the Burglar's ever-increasing skill and facilities invented and manufactured the first Safes.

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The original Tann Safes, although they afforded the greatest security of their time, would not of course offer very prolonged resistance nowadays were they attacked by the scientifically equipped Burglar.

So successfully, however, have Edward Tann's successors waged war against Fire and Burglars, that to-day John Tann Ltd. still retain the premier position, with the unique record of over a hundred and twenty-five years without a single failure.

Architects seeking the maximum security for their Clients' possessions are invited to consult the Technical Dept. of John Tann Ltd. on any question relating to Safe or Strong Room installation.

JOHN TANN LTD
117, NEWGATE STREET, LONDON, E.C.I

Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1a. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	120/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	38/0	Per cwt.
	Ditto	Pipe	38/6	Ditto
	Ditto	Soil	41/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	430/0	Per 1,000
	Ditto	14″ × 9″, ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	8½*d.*	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto. perforated	4*d.*	Per foot super.

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THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.
"The Builder's Reporter and Engineering Times."
"The Building Trade," 1913.

◆

FRIDAY, APRIL 13, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

CONTRACTS OPEN.

ALTRINCHAM.—April 20.—For erecting 26 cottages on their housing estate at Oldfield Brow, for the Urban District Council. Deposit of £1 1s. The Surveyor, Altrincham.

BEVERLEY.—April 23.—For erection of new filter house at the Corporation waterworks. Deposit £1 1s. Messrs. Whiting & Reynolds, architects, 3, Ladygate, Beverley.

BIRMINGHAM.—April 16.—For erection of 68 non-parlour type houses at Sparkhill, under Contract 130, and 404 non-parlour type houses at Alum Rock, under five contracts, Nos. 131-135, for the Birmingham Corporation. Deposit £1 for each contract. Send applications, by April 16, to Mr. H. H. Humphries, M.Inst.C.E., city engineer, Council House, Birmingham.

BURNLEY.—April 18.—For the repair of the chimney at the Duckpits sewage works and of the chimney at the Yorkshire Street store yard, for the Burnley Corporation. Acting Borough Surveyor, Town Hall, Burnley.

CARDIFF.—April 16.—For carrying out the work of excavating and laying the foundations for the physics and chemistry laboratories at the University College, Cathays Park, for the Council. Deposit £2 2s. Mr. W. D. Caroe, architect, 3, Great College Street, Westminster, S.W., or the Registrar of the College, Cathays Park, Cardiff.

CARLISLE.—April 23.—The Corporation invite sole tenders for election of three transformer stations at Church Street. Stanwix; Blackwell Road, Carlisle; Norfolk Street, Carlisle. Mr. H. C. Marks, M.I.C.E., city engineer, 18, Fisher Street, Carlisle.

CORRIS.—April 24.—For erection of a new C.M. chapel at Corris. Messrs. O. Morris Roberts & Son, M.S.A., architects and surveyors, 1, Bank Place, Portmadoc.

DUNDEE.—For mason, brick, joiner, slater, glazier, rough-cast, plumber and plaster works required in erection of houses at Logie, for the Town Council. City Architect's Office, City Chambers, Dundee.

DUNDEE.—April 20.—For supply of wood block floors required at extension to offices, Dudhope Crescent Road, for the Corporation. Mr. D. H. Bishop, B.Sc., M.I.E.E., general manager and engineer, Dudhope Crescent Road, Dundee, or the Generating Station, Carolina Port, Dundee.

FARNBOROUGH.—April 23.—For erection of two cottages, stables, cartsheds, stores, and disinfector stations. for the Urban District Council. Deposit £1 1s. Send application, by April 23, to Mr. J. E. Hargreaves, surveyor, Town Hall, Farnborough, Hants.

GLOSSOP.—April 16.—For erection of a new chancel and vestries, &c., to the Glossop Parish Church. Forward names and £1 1s. deposit, by April 16, to Mr. C. M. Hadfield, architect, 19, St. James Street, Sheffield.

GRANGE-OVER-SANDS.—For a stone house on "The Heads Estate," for Mrs. Potts. Messrs. Settle & Brundrit, A.R.I.B.A., architects, Ulverston.

GRAVESEND.—April 19.—For the construction of a pavilion and ladies' convenience at Windmill Hill pleasure gardens, for the Town Council. The Borough Surveyor's Office, Gravesend.

GREAT HOUGHTON.—For erection of miners' welfare hall at Great Houghton. Deposit £1 1s. Messrs. W. H. Wagstaff & Sons, 57, Salter Gate, Chesterfield, and Mr. R. Higginbottom, Shepherd Lane, Thurnscoe, Rotherham, joint architects.

HALIFAX.—April 23.—For supply and erection of steelwork required in boiler foundations and reconstruction of battery room floor at the electricity works, for the Corporation. Deposit £2 2s. The Borough Engineer, Crossley Street, Halifax.

HUDDERSFIELD.—April 16.—For any of the various works required in erection of a detached house, Longley Road. Send application, by April 16, to Messrs. J. H. Hall & Son, architects and surveyors, 19, Ecxhange Buildings, Market Street, Huddersfield.

LEEDS.—April 25.—For the following in connection with the Kirkstall Road baths, for the Property Committee: (1) Lancashire boiler; (2) asphalte lining to swimming bath; and (3) builder's work, including boiler setting, extension of boilerhouse, re-lining bath, and drainage. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds.

LONDON.—April 17.—For extension of bar at the club premises, 326, City Road, E.C., for the Central Finsbury Radical Club. Mr. H. A. Wright, F.S.I., L.R.I.B.A., architect, 35, Pentonville Road, N.1.

LONDON.—April 21.—For erection of extensions to the Town Hall, East Ham, for the Town Council. Deposit £2. The Borough Engineer, Town Hall, East Ham, E.6.

MELROSE.—April 24.—For mason, joiner, plumber, plaster, slater, painter, and glazier works for alterations of female ward No. 4 and new sanitary annexe at Roxburgh, Berwick and Selkirk District Asylum, Melrose. Messrs. J. & J. Hall, architcets, Ladhope Vale, Galashiels.

NANTYGLO.—April 17.—For converting coachhouse and harness room into an assembly hall in connection with the Secondary School at Hafod-y-ddol, Nantyglo, for the Monmouthshire Education Committee. Mr. John Bain, F.R.I.B.A., County Hall, Newport.

NETHERTON.—April 24.—For the various works required in erection of club premises at Netherton, near Huddersfield. Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge, Huddersfield.

NEWBURY.—April 17.—The Corporation invite alternative tenders for construction of a public convenience in Speenhamland Lane. The Borough Surveyor's Office, Municipal Buildings, Newbury.

NORTH REDDISH.—April 24.—For the general contract work in branch premises and emporium, Gorton Road, for the Stockport Industrial & Equitable Co-operative Society, Ltd. Deposit £5. Messrs. Wrathmell & Blackshaw, architects, St. Peter's Square, Stockport.

POOLE.—April 17.—For erection of 30 workmen's dwellings at the Baiter site, for the Town Council. Mr. S. J. Newman, F.R.I.B.A., borough surveyor, Municipal Offices, Poole.

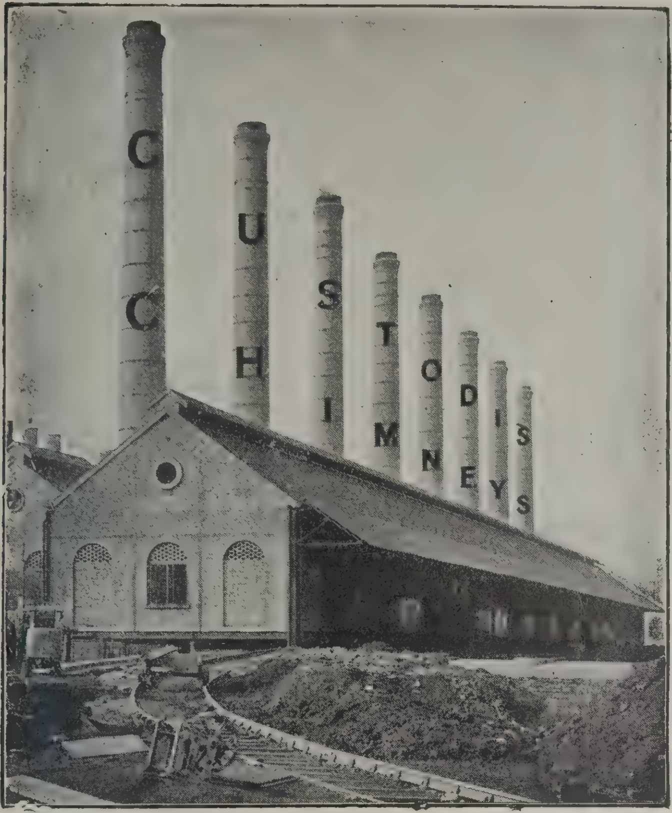
SOUTH KIRKBY, YORKS.—For the whole of the works required in erection and completion of proposed Northfield Hotel, South Kirkby, for the Carter's Knottingley Brewery Co., Ltd. Deposit £2 2s. Messrs. Garside & Pennington, architects and surveyors, Ropergate, Pontefract.

THURCROFT.—For whole or separate trades in erection of new school to accommodate 500 children at Thurcroft, near Rotherham, for the West Riding County Council. Send names and addresses to the Secretary, Education Department, County Hall, Wakefield.

TILBURY.—April 16.—For erection of 42 houses in the South Ward, and 48 houses in the North Ward, of Tilbury, for the Tilbury Urban District Council. Mr. A. W. Buckner, clerk, Council Offices, Tilbury.

TONBRIDGE, KENT.—April 26.—For erection of three cottages in the Castle grounds, for the Urban District Council. The Surveyor, Tonbridge Castle, Kent.

WEST FELTON.—April 23.—For erection of a public hall at West Felton. Material to be used, brick and slate. Mr. K. E. Jones, Rednal Mill, West Felton, Oswestry (hon. secretary to the Committee).



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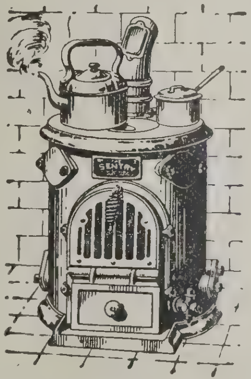

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s*. per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s*.
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced — In small quantities	In considerable quantities
Pull down brickwork	6*d*.	2*d*.
Add, if in *very* small quantities not exceeding 21 ft.	3*d*.	
Add for filling baskets with *debris* and running same out to carts	1½*d*.	1½*d*.
Add if *debris* has to be raised or lowered to ground level	2*d*.	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d*.	2½*d*.

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube — To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d*.
Planking and strutting	4*d*. per foot super.		
Planking, strutting and shoring	1/0	„	„

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced — Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
„ „ cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. — Horizontal	Vertical
Two courses of slates in cement	10*d*.	1/3
¾-in. asphalte	10*d*.	1/3

Facings	Per Foot Super. — Flemish bond	English bond
Allow for every 5*s*. additional cost of the facing bricks over the common brick basis	½*d*.	½*d*. plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d*.
Flat joint in cement (struck) and lime whiting	1½*d*.

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d*.
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s*. per thousand additional cost of bricks over the common basis price	½*d*. plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. — 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube — Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d*.	3½*d*.	4*d*.	4½*d*.
Add for each side bead butt	4*d*.	4*d*.	4½*d*.	5*d*.

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d*.

	Per Foot Cube — Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area — 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d*.	3½*d*.	5*d*.	6½*d*.	9*d*.	11½*d*.	1/1	1/2
Deal, wrot fixed and moulded	2¾*d*.	4*d*.	5½*d*.	7*d*.	10*d*.	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d*.	8½*d*.	11*d*.	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½d.	1d.	½d.	2d.

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	48/6	55/0	58/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4d.	2/0	4d.	6d.	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints	—	—	—	3/6	3/6	—	—	—
Stop end	9d.	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10d.	10d.	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9d.	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Per Square Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7d. per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Per Cwt. Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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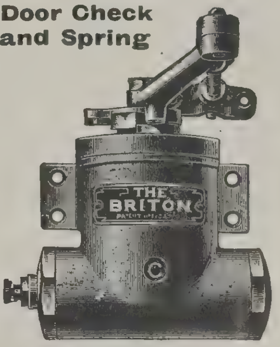

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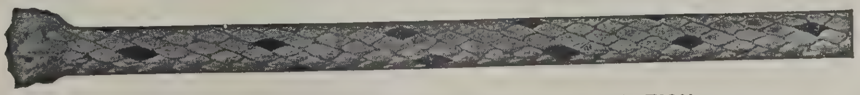

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass		Figured Rolled	¼in. Rolled	Cast Glass		¼in. Wired Cast Glass	Metal bar Patent Glazing
21oz.	15oz.			$\frac{5}{16}$in.	¼in.		
0/10¾	0/8½	1/0¾	0/9¼	0/10¾	0/11¼	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on			If on Narrow Widths
		Small Panels	Medium Panels	Large Panels	
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes ..	Per Foot Run 0/0½	0/0¾	0/1¼	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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Fig. 168.
G.M. Angle Radiator Valve with Union and Wood Wheel, fitted with Jenkins Renewable Disc.

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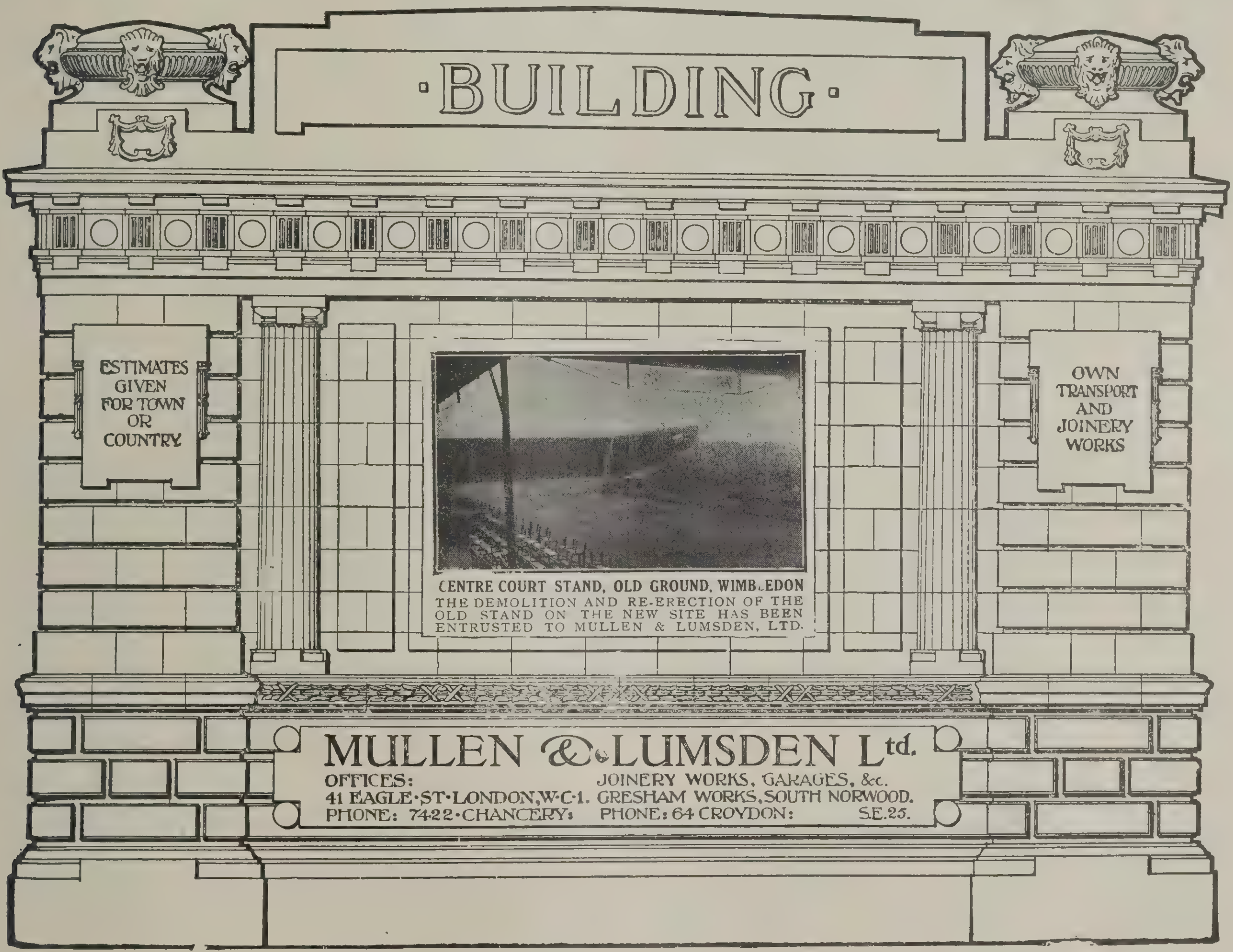

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1d. to Mechanic's Rate
1916–July	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0¾	11¾d.		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add ½d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11		
1921–July 1	2/2	2/1	1/10	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add 1d.* to the workman's class rate
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	120/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	120/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	10/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝d.	
	Ditto	Ditto 21 oz.	5½d.	
	Ditto	Ditto 26 oz.	6⅞d.	
	Ditto	Rough cast ⅛"	6¾d.	
	Ditto	Wired, cast	10½d.	
	Ditto	Figured, rolled	8d.	
	Ditto	Flemish or Arctic	8d.	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 37½%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	38/0	Per cwt.
	Ditto	Pipe	38/6	Ditto
	Ditto	Soil	41/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	Europeän	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/0 2/11	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4"	4/4	Per yard
	Solder	Plumbers'	8½d.	Per lb.
	Steam	Tubes, Standard list	—45%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—27½%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5d. 6d.	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto. perforated	4d.	Per foot super.

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◆

FRIDAY, APRIL 20, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

BACKWORTH.—April 28.—For erection of 30 'A' type houses at Castle Park, for the Earsdon Urban District Council. The Surveyor, Council Offices, Shiremoor.

BENSON, OXON.—May 4.—For erection of a parish hall, for the Benson Parish Council. Mr. W. Honeybone, surveyor, 12 St. Martin's Street, Wallingford.

BRAMPTON.—April 24.—For erection of bank premises at Brampton, Cumberland, for the Bank of Liverpool and Martins, Ltd. Send applications by April 24 to Mr. H. Oldfield, M.S.A., architect and surveyor, Workington.

BURNLEY.—April 23.—For the various trades required in alterations and extension at the Nurses' Home and the erection of a lecture room at the Infirmary, for the Guardians. Send applications and £1 1s. deposit by April 23 to Messrs. G. and F. Keighley, architects, Nicholas Street, Burnley.

BURY ST. EDMUND'S.—May 5.—For erection and completion of 24 houses (in two lots of 12 each) on the Grove Park Estate, for the Corporation. Mr. R. H. Beaumont, A.M.I.C.E., borough surveyor, Town Hall, Bury St. Edmund's.

CARLISLE.—April 30.—For erection of 115 cottages on the Blackwell Road estate, and 80 cottages on the Wigton Road estate, or a less number as may be decided, for the Corporation. Tenders may be submitted for separate trades, and for the whole or less number. Mr. H. C. Marks, M.I.C.E., city engineer and surveyor, 18, Fisher Street, Carlisle.

CHIRK.—April 30.—Houses.—For erection and completion of 29 type "A" houses on sites at Chirk and Glyn Ceiriog, for the Chirk Rural District Council. Contractors may tender for blocks of two or more, or for the whole number of houses required. Deposit £2 2s. Messrs. Berrington, Son and Watney, architects, Prudential Chambers, Wolverhampton, and 4 Memorial Hall, Oswestry.

DENVER.—May 4.—For alterations and additions to College Farm House, Denver, Norfolk, for the Small Holdings Committee. Deposit £1 1s. The County Land Agent, the Shirehouse, Norwich.

DONCASTER.—For the various works required in erection of new shop and offices in St. Sepulchre Gate, Doncaster, for Alderman W. D. Borrill. Messrs. B. D. Fairbank and Son, architects, 1 Bank Street, Bradford.

EDINBURGH.—April 24.—Car Depot.—For (1) excavator and brick, carpenter and joiner, plumber and concrete floor works, and (2) steel and smith works, proposed in reconstructing the Portobello car depot to form new electric car lyes, for the Town Council. Mr. J. A. Williamson, A.R.I.B.A., city architect, City Chambers, Edinburgh.

EMSWORTH.—For erection of residence in Warblington Road, for Lieut. E. C. Cordeaux, R.N. Mr. J. Auty, A.R.I.B.A., architect, 16 Queen Street, Emsworth.

FRAMWELLGATE MOOR.—April 30.—For erection of 16 "A" type houses at Framwellgate Moor, for the Durham Rural District Council. Deposit £3 3s. Mr. G. Gregson, surveyor, 38 Saddler Street, Durham.

FARNBOROUGH.—May 28.—For erection of two cottages, stables, cartsheds, stores and disinfector station, for the Urban District Council. Send names and £1 1s. deposit by April 23 to Mr. J. E. Hargreaves, surveyor, Town Hall, Farnborough, Hants.

GILLINGHAM.—May 1.—For extension and alteration to the Rock Avenue Working Men's Club, for the Trustees. Deposit £2 2s. Mr. E. J. Hammond, C.E., M.S.A., architect and surveyor, 21 Balmoral Road, Gillingham, Kent.

GODALMING.—April 25.—For alterations to cottage for clerk and storekeeper at King George V. Sanatorium, for the Metropolitan Asylums Board. Deposit £1. Mr. T. Cooper, M.I.C.E., etc., engineer-in-chief, the Office of the Board, Victoria Embankment, E.C.4.

GOLDTHORPE, YORKS.—April 30.—For erection and completion of public hall and institute at Goldthorpe, for the Bolton-upon-Dearne Miners' Welfare Fund. Deposit £2 2s. Messrs. Garside and Pennington, architects, Ropergate, Pontefract.

IRVINE.—April 28.—For any of the following works in connection with 12 additional houses at the Bank Street housing scheme, for the Town Council :—(1) Digger and brick works, (2) carpenter and joiner works, (3) glazier work, (4) slater and roughcasting works, (5) plumber work, (6) plaster work, (7) drains and entrance paths works. Mr. J. Armour, architect, Bridgegate, Irvine.

KIPPAX.—For whole or separate tenders in erection and completion of Parsonage at Great Preston, Kippax, Yorks. Deposit £2 2s. Mr. F. Scatchard, M.S.A., architect and surveyor, Midland Bank Chambers, Castleford.

LEEK, STAFFS.—April 27.—Houses.—For erection of 15 blocks of two houses each, type A, one block of two houses, type B ; or 28 blocks of two houses each, type A, three blocks of two houses each, type B ; or 49 blocks of two houses each, type A, 11 blocks of two houses each, type B, on the housing site off Buxton Road, for the Urban District Council. Mr. W. E. Beacham, architect and surveyor, Town Hall, Leek.

LINTHWAITE, YORKS.—April 26.—For the various trades required in erection of a detached residence, near Bankfield, Linthwaite. Messrs. C. F. Mallinson and Son, P.A.S.I., Market Place, Huddersfield.

LONDON.—April 24.—For additions and alterations to the Bruce Grove convenience, for the Tottenham Urban District Council. Deposit £1 1s. The Engineer, Town Hall, Tottenham, N.15.

LONDON.—May 1.—For the construction of an underground pumping chamber at their electricity works, High Street, Mortlake, for the Barnes Urban District Council. Mr. C. S. Davidson, M.I.E.E., etc., engineer and manager, Electricity Works, High Street, Mortlake, S.W.14.

NORTH MARSTON.—April 28.—For repairs and alterations to farmhouse and buildings, erection of two new cowhouses, etc., at Brook Farm, for the Bucks Agricultural Committee. Mr. G. M. Odam, county land agent, 21 Walton Street, Aylesbury.

OLDBURY.—April 30.—For erection of 20 houses at Manor Road, in the adjoining urban district of Oldbury, for the Smethwick Urban District Council. Mr. A. Hosken, borough engineer, Smethwick.

RAMSGATE.—April 25.—For the erection of ladies' conveniences in the existing Boundary Road conveniences, for the Corporation. Mr. T. G. Taylor, borough engineer, Albion House, Ramsgate.

ROCHDALE.—May 1.—The Commissioners of His Majesty's Works, etc., invite tenders, for erection of a post office at Rochdale. Deposit £1 1s. The Head Post Office, Rochdale, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

ROTHWELL.—April 25.—For erection of 36 scullery houses on the Rothwell Haigh building site, in blocks of four and six, for the Urban District Council. Builders may tender for one or more blocks, and all tenders to be per block of four, and alternatively per block of six. Mr. W. Dodgson, clerk, Council Offices, Rothwell, Yorks.

SCARBOROUGH.—April 28.—For erection of four pairs of semi-detached and one block of four houses in Seamer Road and Edgehill Road, for the Town Council. Mr. H. W. Smith, A.M.I.C.E., borough engineer and surveyor, Town Hall, Scarborough.

SHEFFIELD.—May 11.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of the Central Telephone Exchange, Sheffield. The Head Post Office, Sheffield, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

STANLEY.—April 24.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of 40 houses at Stanley, Co. Durham. Deposit £1 1s. The Borough Surveyor, Stanley, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

THORNLEY.—April 30.—For erection of nine aged miners' cottages at Thornley. Mr. M. E. Johnson (the Committee's agent), Engineer's Office, Thornley Colliery.

WHEATLEY. For erection of club premises, Wheatley. Deposit £2 2s. Mr. B. Richardson, M.S.A., architect, Doncaster.

WORTHING.—April 30.—For conversion of West Worthing police station, Heene Road, into two houses, for the West Sussex Standing Joint Committee. Mr. H. P. Roberts, F.R.I.B.A., county architect, Westgate, Chichester.

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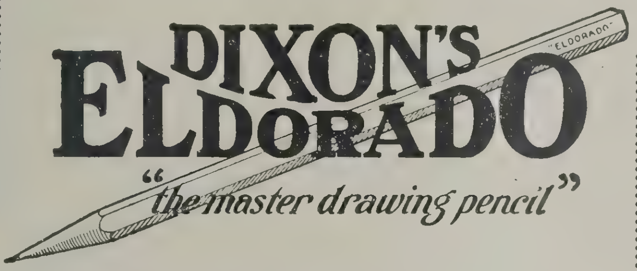

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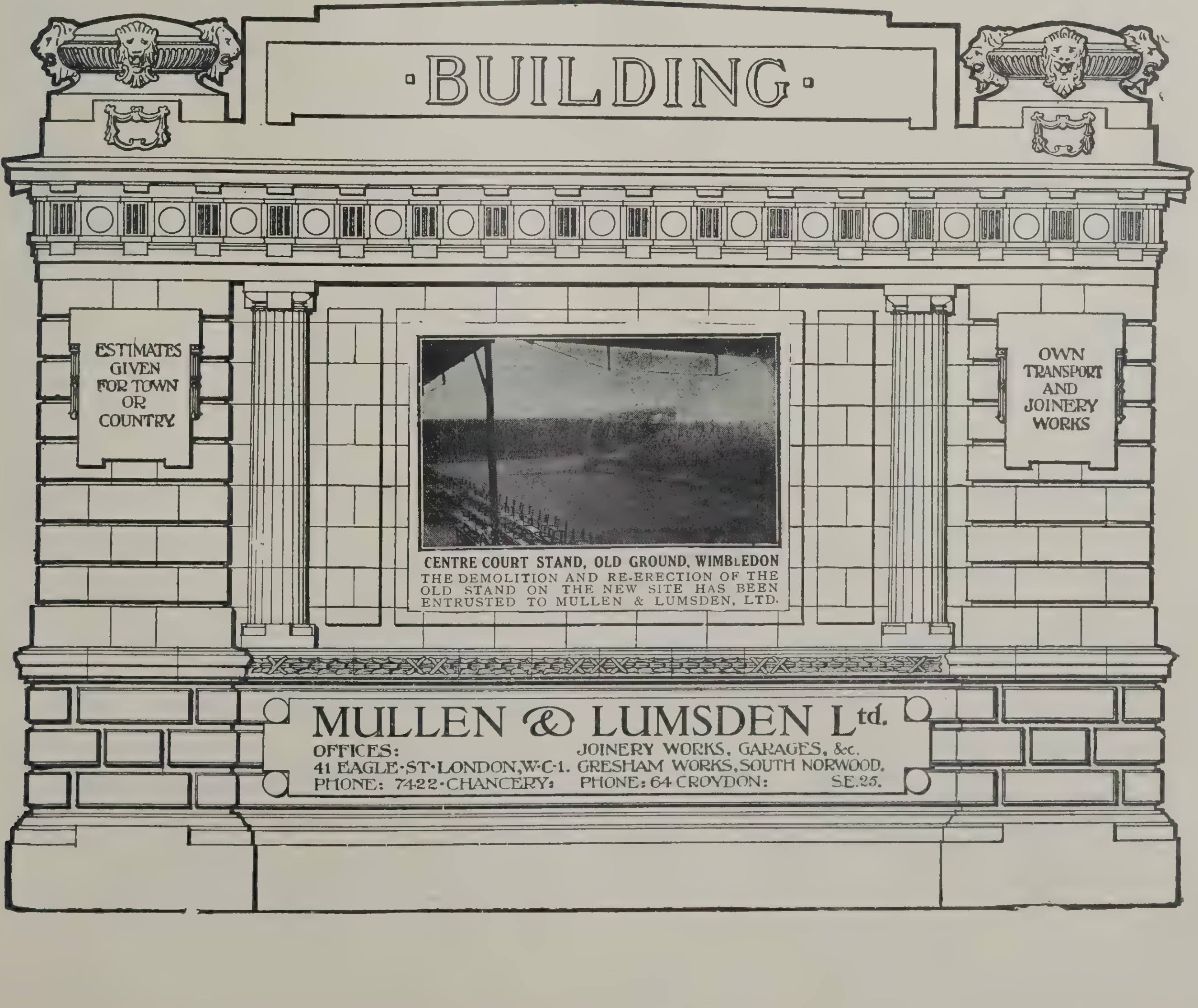
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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0	,,	,,

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
,, ,, cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	17/0 to 26/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

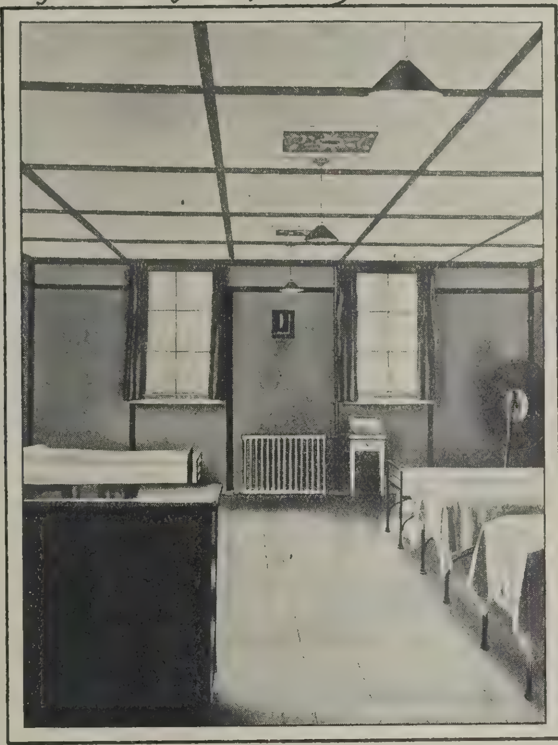
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Ayr County Hospital



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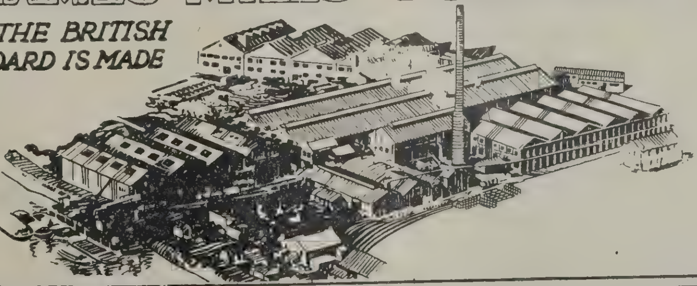

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	47/6	54/0	57/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

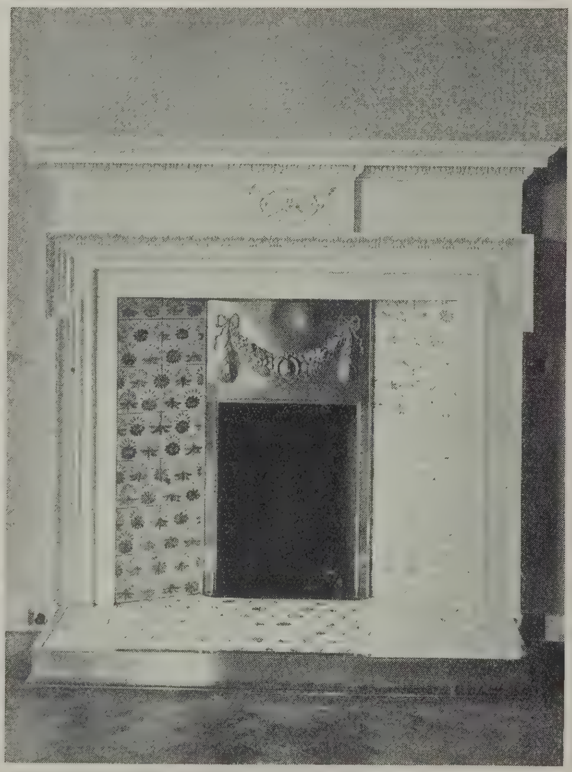
Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.		
	Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3



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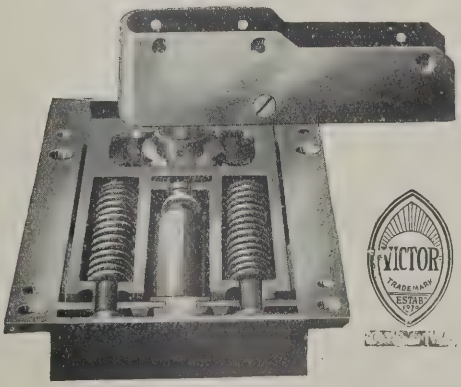

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10¾	0/8½	1/0¾	0/9½	0/10¾	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes	Per Foot Run 0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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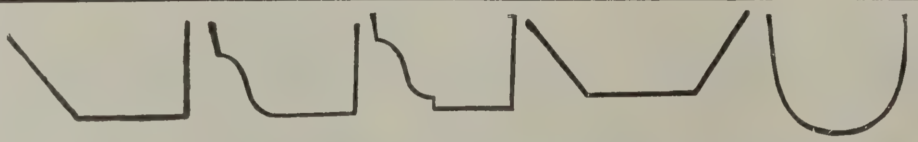

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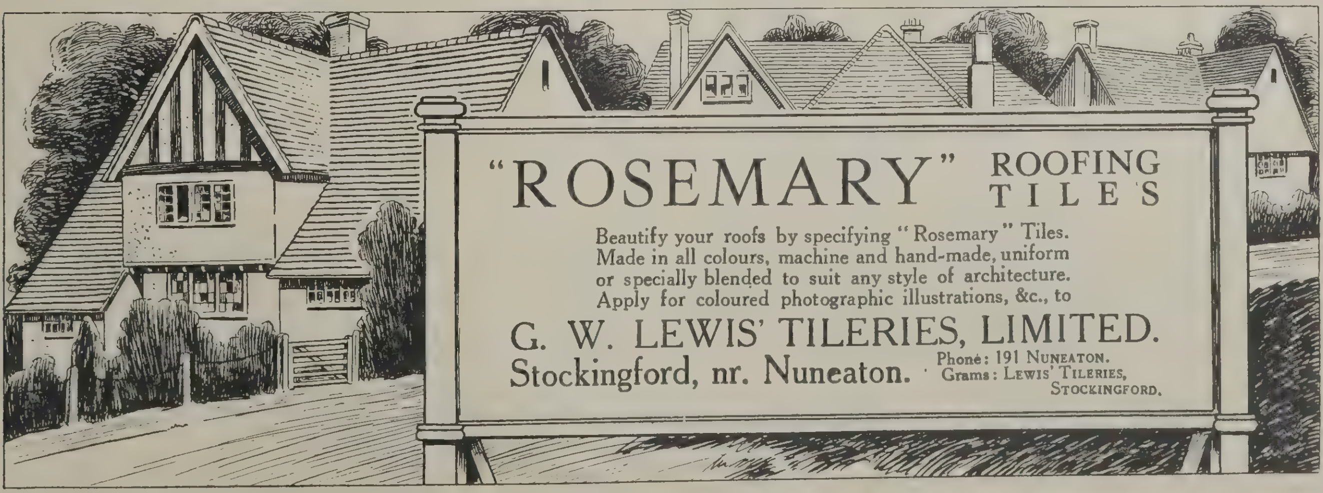

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

Date of Variation	Mechanic	Painter	Labourer	Notes as to Rate Paid to Special Workmen	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	Item.	Class.	Cost.	Unit.
A	Antisyphonage ..	.. Pipes, iron, 2" ..	2/6	Per yard
	Asbestos ..	.. Sheeting ..	1/9	Ditto
	Ditto ..	.. Ditto, corrugated ..	3/6	Ditto
	Aluminium	.. Paint	25/0	Per gallon
			2" ¾"	
B	Ballast ..	.. Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	.. Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	.. Brass	5/6 7/9 13/4	each
	Brick ..	.. Broken	10/6	Per yard cube d/d
	Ditto ..	.. Hardcore	5/0	
	Bricks ..	.. Blue, wirecuts ..	145/6	
	Ditto ..	.. Ditto, pressed ..	185/6	Per 1,000 F.O.R. London
	Ditto ..	.. Firebricks	223/0	
	Ditto ..	.. Fixing, breeze ..	80/0	
	Ditto ..	.. Flettons	55/0	
	Ditto ..	.. Reds	120/0	
	Ditto ..	.. Rubbers	265/0	
	Ditto ..	.. Stocks	92/6	Delivered
	Ditto ..	.. White	120/0	F.O.R. London
	Ditto	.. White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	.. Ditto headers ..	430/0	
	Ditto ..	.. 2nd quality	20/0	Per 1,000 less
	Breeze ..	.. Coke	10/6	Per yard cube d/d
	Ditto ..	.. Pan	5/6	
C	Cartage ..	.. Of Bricks, blue ..	12/6	Per 1,000 from rail to job.
	Ditto ..	.. Of ditto, Flettons ..	9/0	
	Ditto ..	.. Of ditto, glazed ..	15/0	
	Cement ..	.. Keenes	105/0	Per ton delivered
	Ditto	.. Portland	58/0	
	Ditto	.. White, ditto	312/0	
	Copper	.. Nails	1/4	Per lb.
	Ditto	.. Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	.. Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto ..	.. Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	.. Pipes	5/0 7/9	Per yard delivered
	Driers ..	.. For paint	60/0	Per cwt.
E	Enamel ..	.. White, best	25/0	Ditto, per gallon
F	Felt ..	.. Roofing	10/7	Delivered, per square
	Fireclay ..	.. Stourbridge	2/3	Ditto, per cwt.
			1" 1½"	
	Flooring ..	.. Deal, P.E.	26/0 33/0	Per square delivered
	Ditto ..	.. Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	.. Tubes, Standard list ..	— 55%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 50%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 45%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	.. Ditto 3 ditto ..	2/2½	
	Ditto ..	.. Ditto 5 ditto ..	2/11	
	Ditto ..	.. Ditto 7 ditto ..	3/4	
	Ditto ..	.. Ditto 10 ditto ..	3/7	
	Ditto ..	.. Ditto 25 ditto ..	3/9½	
	Ditto ..	.. Ditto 100 ditto ..	4/7	
	Ditto ..	.. Sheet, 15 oz. ..	3⅝*d.*	
	Ditto ..	.. Ditto 21 oz. ..	5½*d.*	
	Ditto ..	.. Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	.. Rough cast ¼" ..	6¾*d.*	
	Ditto ..	.. Wired, cast	10½*d.*	
	Ditto ..	.. Figured, rolled ..	8*d.*	
	Ditto ..	.. Flemish or Arctic ..	8*d.*	
	Ditto ..	.. Lead lights in plain sheet squares	2/0	
	Gold leaf ..	.. English	2/9	Per book
	Gold size	.. Best	20/0	Per gallon
	Granite ..	.. Chippings ..	28/0	Delivered, per yard
	Ditto ..	.. Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	Item.	Class.	Cost.	Unit.
H	Hire ..	.. Horse, cart and man ..	25/0	Per day
	Ditto ..	.. Lorry and driver ..	80/0	Ditto
	Ditto ..	.. Steam roller .. .. Water cart and men ..	100/0	Ditto
	Ditto ..	.. Sacks	3*d.*	Each
	Hot water	.. Tubes, Standard list	— 50%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 45%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 37½%	Ditto
J	Joists ..	.. Steel, rolled	260/0	Per ton delivered
	Ditto ..	.. Wood, soft, 9"×3" ..	3/9	Per foot cube delivered
	Ditto ..	.. Ditto, ditto, 7"×2½"	3/2	
	Ditto ..	.. Ditto, ditto, 6"×2" ..	3/0	
K	Knotting ..	.. ..	35/0	Per gallon
L	Lathing ..	.. Metal	1/0	Per yard
	Ditto ..	.. Wood, sawn	3/9	Per bundle
	Lead ..	.. Sheet	37/0	Per cwt.
	Ditto ..	.. Pipe	37/6	Ditto
	Ditto ..	.. Soil	40/0	Ditto
	Ditto ..	.. White	58/9	Ditto
	Lime ..	Grey stone	51/3	Per ton
	Ditto ..	.. Blue lias	58/6	Ditto
M	Mahogany	.. Honduras	19/0	Ft. cube
	Ditto ..	.. Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching ..	.. Deal, T. G. & T.	18/0 21/0 28/0	Per square delivered
N	Nails ..	.. Brads, floor	22/9	Per cwt. delivered
	Ditto ..	.. Cut clasp	23/0	
	Ditto ..	.. Lath	31/0	
	Ditto ..	.. Wire, oval	26/0	
O	Oak ..	.. American	14/0	Per foot cube delivered
	Ditto ..	.. English	13/0	
	Ditto ..	.. European	21/0	
	Ditto ..	.. Japanese	20/0	
	Oil ..	.. Linseed, boiled ..	4/1	Per gall.
	Ditto ..	.. Ditto, raw	3/10	ditto
P	Paint ..	.. Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	.. Breeze	2/0 2/7	Per yard sup. d/d
	Plaster ..	.. Paris, coarse	70/0	Per ton delivered
	Ditto ..	.. Sirapite ,, ...	70/0	
	Ditto ..	.. Slabs, ceiling	2/3	Per yard
	Putty ..	.. Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	.. Gutters, O.G. ..	2/4 2/8	Per yard d/d
			3" 4"	
	Ditto ..	.. Pipes, round	2/0 2/11	
	Roofing, iron	.. Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	.. Ordinary	13/0	Per yard cube d/d
	Ditto ..	.. Washed	14/0	
			No. 8 No. 10	
	Sash ..	.. Lines, flax	3/8 4/6	Per knot
	Ditto ..	.. Weights, iron ..	12/0	Per cwt.
	Ditto ..	.. Ditto, lead	40/0	Ditto
	Size ..	.. Best	5/6	Per fkn.
	Slates ..	.. 20"×10", Welsh ..	430/0	Per 1,000
	Ditto ..	.. 14"×9", ditto	175/0	Ditto
	Soil pipes	.. L.C.C., iron, 4" ..	4/4	Per yard
	Solder ..	.. Plumbers'	8½*d.*	Per lb.
	Steam ..	.. Tubes, Standard list ..	—45%	Delivered
	Ditto ..	.. Fittings, ditto ..	—40%	Ditto
	Ditto ..	.. Tubes, galvanised ..	—27½%	Ditto
	Steel ..	.. Angles	14/6	Per cwt.
	Ditto ..	.. Bolts	36/0	Ditto
	Ditto ..	.. Joist	13/0	Ditto
	Ditto ..	.. Stanchions	17/0	Ditto
	Stone ..	.. Bath	4/2	Per foot cube d/d
	Ditto ..	.. Portland	5/8	
	Ditto ..	.. York	6/9	
T	Tar ..	.. Stockholm	1/0	Per gallon
	Teak ..	.. Eng.	12/0	Per foot cube d/d
	Ditto ..	.. Moulmein	19/0	
	Terebine ..	.. ..	13/6	Per gallon
			2" 4"	
	Thimbles ..	.. Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	.. Plain, roofing ..	120/0	Per 1,000
	Ditto ..	.. 6"×6", white glazed ..	12/6	Per yard
	Timber ..	.. Deal, joinery	5/9	Per foot cube d/d
	Ditto ..	.. Ditto, Carpenters'	3/6	
	Ditto ..	.. Slating battens ..	3/0	Per 100 feet
			1½" 2"	
	Traps ..	.. Cast, lead, S.	3/0 4/3	Each
	Ditto ..	.. Ditto, P.	2/4 3/5	Ditto
	Turpentine	..	9/3	Per gallon
			½" ¾" 1"	
U	Unions ..	.. Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves ..	.. Ball	5/6 7/9 13/4	Each
	Varnish ..	.. Hard, oak	15/0	Per gallon
	Ditto ..	.. Copal	17/0	Ditto
	Ditto ..	.. Flat	16/0	Ditto
W	Whiting ..	.. Gilders'	3/0	Per cwt.
	Wire ..	.. Guards, galvd. ..	2/6	Per foot super
			2" 4"	
	Ditto ..	.. Balloon, ditto, ditto ..	5*d.* 6*d.*	Each
	Ditto ..	.. Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	.. Sheeting ..	40/0	Per cwt.
	Ditto ..	.. Ditto, perforated ..	4*d.*	Per foot super.

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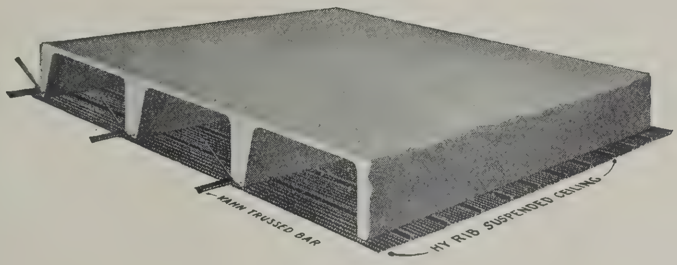

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FRIDAY, APRIL 27, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

*** *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ASHINGTON.—For arcade, office and other premises for the Ashington Industrial Co-operative Society, Ltd. Deposit £5 5s. Also for erection of four cottages for the same Society. Messrs. Harrison, Ash, and Blythe, architects, 22 Ellison Place, Newcastle-on-Tyne, and Ashington.

BARNSLEY.—For the various trades in connection with the new office and showroom for the Electricity Department. Mr. E. A. Barker, borough electrical engineer, Electricity Works, Barnsley.

BARNSLEY.—May 7.—The Town Council invite fresh tenders for the excavator, mason and bricksetter's work in erection of a block of shops and offices in Eldon Street and Kendray Street. The Borough Engineer, Fairfield House, Barnsley.

BIRMINGHAM.—May 14.—For erection of swimming bath, Woodcock Street, and bathing establishment, Erdington, for the Corporation. Send applications and £2, by April 28, for each set of quantities, to Mr. R. Hoggins, superintendent engineer, Kent Street, Birmingham.

BOLSOVER.—May 19.—For erection of 16 type " A " houses on the Moorfield Lane housing site, for the Urban District Council. Deposit £2. Mr. S. Hoten, surveyor, Council Offices, Bolsover.

BRIGHTON.—May 11.—For erection of 93 houses on the portion of the Queen's Park housing site fronting to Parkhurst Avenue, Kemp Town, for the Town Council. Send names, with a deposit of £1, to any member of the panel of architects, viz. : Messrs. Clayton & Black, 10 Prince Albert Street ; Messrs. T. Garrett & Son, 34 Ship Street ; Mr. E. Wallis Long, 56 East Street ; Mr. W. H. Overton, 22 Ship Street.

BURLEY-IN-WHARFEDALE.—For erection of houses on the Greenholme estate, for Messrs. W. Fison & Co., Ltd. Mr. H. Chippindale, architect, Guiseley.

BUXTON.—May 14.—For various works required in erection of : (*a*) 6 non-parlour type houses in King's Road, Fairfield, in one block ; (*b*) 20 parlour-type houses on the Heath Grove Estate, in blocks of 2, 3, and 4 houses, for the Town Council. Deposit £2 2s. Mr. F. Langley, borough engineer, Town Hall, Buxton.

COWBRIDGE, ETC.—May 5.—Alterations, etc.—For the following work for the Standing Joint Committee of the Glamorgan Quarter Sessions and County Council : Cowbridge police station and court, alterations, additions, re-roofing, etc. The Glamorgan County Hall, Cardiff.

DEWSBURY.—May 5.—For masons', joiners', slaters', plumbers', plasterers and painters' work required in two semi-detached houses, Healds Road. Messrs. Holtom & Son, architects, Dewsbury.

DOUGLAS.—May 17.—For erection of four houses in Allan Street, for the Town Council. The Borough Surveyor, Town Hall, Douglas, Isle of Man.

EARLESTOWN.—May 8.—For erection of 40 type A houses (in brick) at the South Mesnes, Earlestown, for the Newton-in-Makerfield Urban District Council. Mr. J. Elston, A.R.I.B.A., Market Chambers, Earlestown, Lancs.

EASINGTON.—May 14.—Houses.—For erection of A type houses on their housing sites at Murton, South Hetton, New Seaham, Horden, Shotton and Wingate, for the Easington Rural District Council. Mr. J. W. Hays, A.R.I.B.A., architect, Wingate, County Durham.

FIXBY, YORKS.—May 7.—For the various trades required in erection of two semi-detached houses, Lightridge Road. Mr. J. Ainley, architect and surveyor, 3 Chapel Hill, Huddersfield.

GRANGETOWN.—May 4.—For erection of (1) fire brigade station and superintendent's quarters, (2) four firemen's cottages, (3) new approach road to Cleveland House, and (4) roads, etc., to fire station, for the Eston Urban District Council. Deposit £1 1s. The Surveyor, Cleveland House, Grangetown.

HALIFAX.—May 1.—For the various works required in erection of additions to machine tool works in Halifax. Send names by May 1 to Messrs. C. F. L. Horsfall & Son, architects, Lord Street Chambers, Halifax.

HEATON.—April 30.—For erection of a residence in Toller Lane, Heaton, Bradford. Messrs. T. H. & F. Healey, architects, 42, Tyrrel Street, Bradford.

KIMBLESWORTH.—April 28.—For erection of Memorial Hall, etc. Deposit £1 1s. Messrs. Hays & Gray, AA.R.I.B.A., architects, Wingate, co. Durham.

LONDON.—May 3.—For (1) an addition to the mortuary, and (2) new entrance gates at their Institution in Bancroft Road, for the Guardians of Mile End Old Town. Mr. E. J. Harrison, L.R.I.B.A., architect, 23 Berkeley Road, Crouch End, N.8.

LONDON.—May 3.—For certain alterations and additions to the stores of their South West Ham Relief Station, Cumberland Road, Plaistow, E.13, for the Guardians of West Ham Union. Mr. F. J. Sturdy, F.R.I.B.A., 115 Moorgate, E.C.2.

LONDON.—May 9.—For erection of 205 cottages on the Roehampton Estate, Putney, for the London County Council. Deposit £3. The Architect to the Council, County Hall, Westminster Bridge, S.E.1.

LONDON.—May 15.—For the construction of foundations for a new installation of engines and pumps, boiler foundations and economiser house, and the construction of a new pumping main between the engine-house and the northern outfall sewers, and other works in connection therewith, at the Abbey Mills pumping station, for the London County Council. Deposit £5. The Chief Engineer, at the Old County Hall, Spring Gardens, S.W.1.

LONDON.—May 17.—For the external repair and redecoration of the following public libraries, for the Lambeth Borough Council, viz. : (1) West Norwood, situate at Knight's Hill, West Norwood, S.E.27 ; (2) Durning, situate at Kennington Cross, S.E.11 ; and (3) North Lambeth, situate at 74, Lower Marsh, S.E.1. Mr. O. Cattlin, A.M.Inst.C.E., acting borough engineer, Lambeth Town Hall, Brixton Hill, S.W.2.

MENSTON.—May 14.—The West Riding Asylums Board invites tenders (whole or separate) for the work in connection with erection of an isolation hospital at the West Riding Asylum, Menston, near Leeds (bricklayer, joiner, slater, plumber, plasterer, painter). Deposit £1. Mr. W. E. H. Burton, A.M.I.C.E., architect and engineer, West Riding Asylums Board Offices, Wakefield.

MERTHYR TYDFIL.—May 14.—For erection of 36 houses at Gellifaelog and 14 houses at Heol-gerrig, for the Merthyr Tydfil Town Council. The Borough Architect, Town Hall, Merthyr Tydfil.

MERTHYR TYDFIL.—May 28.—For erection of offices at the Workhouse, Merthyr Tydfil, for the Guardians. Deposit £2 2s. Messrs. T. Roderick & Sons, architects, Clifton Street, Aberdare.

PENRYN.—May 7.—For erection of a Council school at Mylor Bridge, Penryn, for the Cornwall Education Committee. Mr. F. G. Drewitt, architect, Lennards Chambers, Penzance.

PORTSMOUTH.—May 7.—For proposed alterations and additions to their premises at Landport Street, for Messrs. Charles Leetham & Co. Messrs. Charles Leetham & Co., Arundel Factory, Landport Street, Portsmouth.

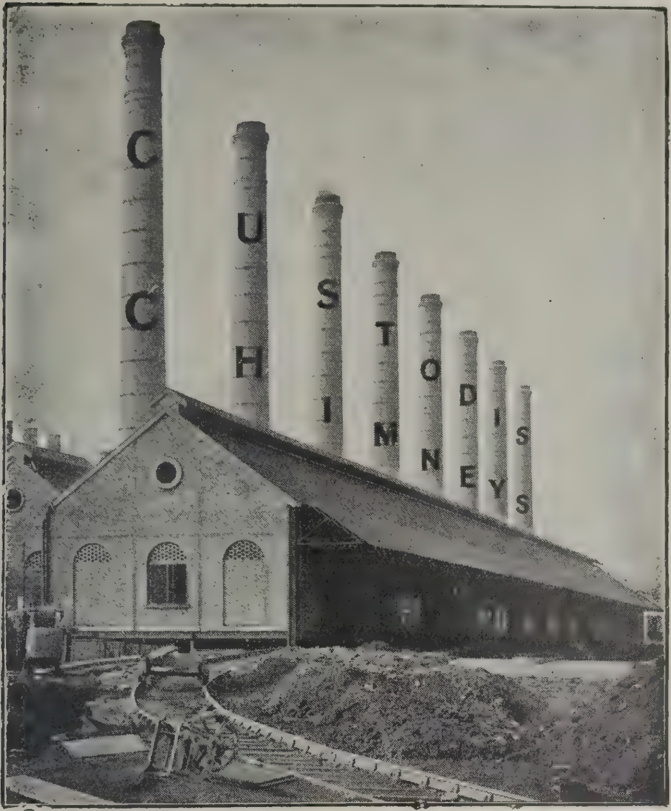
REIGATE.—May 5.—For extensions to buildings in connection with its electricity undertaking, for the Town Council. Mr. C. H. Wordingham, C.B.E., M.I.C.E., consulting engineer, 7 Victoria Street, London, S.W.1.

SALFORD.—May 28.—Open-air School.—For erection of open-air school, for the Corporation. The Secretary, Education Office, Chapel Street, Salford.

TONYREFAIL.—For erection of a Primitive Methodist Church at Tonyrefail. Deposit £2 2s. Messrs. Wills & Armitage, architects, 125 Pall Mall, S.W.

WARRINGTON, May 14.—For 6,000 kw. turbo-alternator foundations and alterations to engine-room at the electricity works, Howley, for the Electricity, &c., Committee. Deposit £1 1s. Mr. F. V. L. Mathias, borough electrical and tramway engineer, Electricity Works, Warrington.

WATFORD.—May 16.—For erection of 40 houses on the Wiggenhall Estate, for the Borough Council. Send applications and £3 3s. deposit by May 4, to The Borough Surveyor, Municipal Offices, Watford.



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Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3 9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0	,,	,,

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	566/0	705/0	1039/0
,, ,, cement mortar	596/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¼*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6
Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.			
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

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THE Lewbart Disinfector dispenses almost entirely with the human element. With the precision and accuracy of a chemist it measures out five drops of disinfectant fluid, adds seven ounces of water, and then introduces the mixture into the pan, *after the flush has taken place.* The Disinfectant in Container or Refill is sufficient for 1,400 pulls of the lavatory chain. In a word it is

Automatic and Disinfectant

IMPORTANT.—The pan is not discoloured when the Disinfectant is discharged by the Lewbart Disinfector.

PRICE (Heavily Nickel-plated) complete with Container holding 16 oz Disinfectant, 2 plated clips and rubber joint, **35/-**

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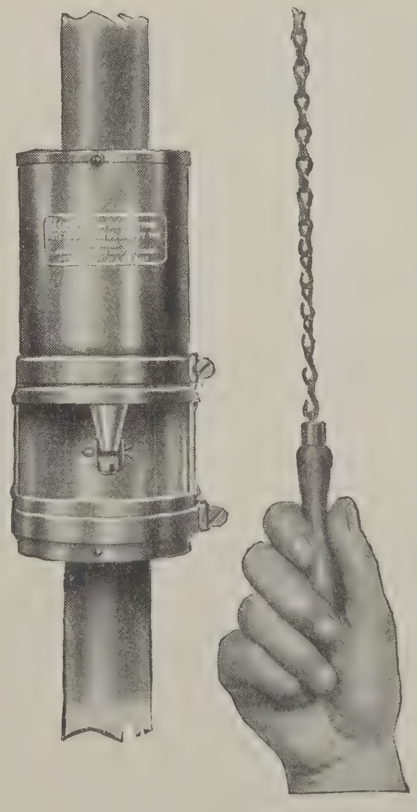

Fixed on down pipe leading from Cistern to Lavatory.

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	46/6	53/0	56/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.	
	Up to 1st Floor	Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	1/0½	1/1½	1/6½
Bends or shoes, each	1/8	2/3	3/1
Junctions, each	2/4	3/4	4/3
	4in.	5in.	6in.
Gutters fixed with brackets	1/4	1/8	1/11
Outlets and angles	5/0	6/0	7/6
Stop ends	1/6	2/0	2/3

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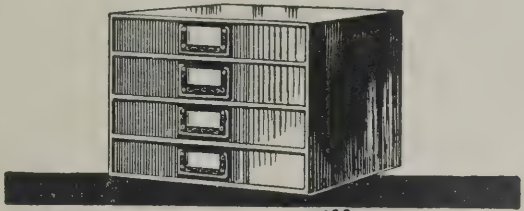

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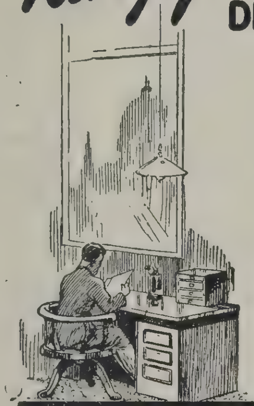

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IDEAL FOR AUTUMN PAINTING		
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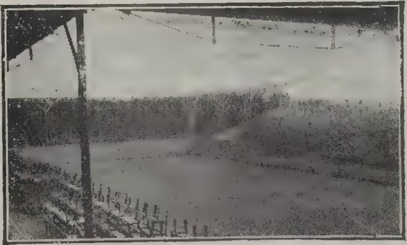

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Per Foot Run Rounded Angle	Per Foot Run Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/10½	0/8½	1/0½	0/9½	0/10½	0/11½	1/3	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	Size *Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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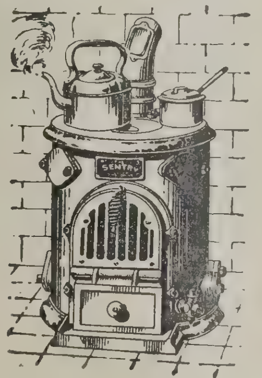

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Made in 5 sizes, in Cast Iron, Wrought Iron or Copper

SENTRY Boilers in Wrought Iron are more durable for use with hard water, and the small extra cost over Cast Iron is negligible.

IMPORTANT

In all sizes of **Sentry** Boilers the waterway extends six inches below the fire bars to allow any sediment to fall to the coolest part of the boiler; this is an absolute necessity in any boiler used for hot water supply if its early destruction through incrustation is to be avoided—Large and well placed mud hole covers readily facilitate the cleaning of the boiler and the removal of the deposit.

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DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	55/0	
	Ditto	Reds	110/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−17½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1½″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 60%	Delivered
	Ditto	Fittings, ditto	— 60%	Ditto
	Ditto	Tubes, galvanised	—47½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 55%	Ditto
	Ditto	Tubes, galvanised	— 41¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″ × 3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto	Ditto, ditto, 6″ × 2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	36/0	Per cwt.
	Ditto	Pipe	36/6	Ditto
	Ditto	Soil	39/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/0 2/4	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/9	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″ × 10″, Welsh	430/0	Per 1,000
	Ditto	14″ × 9″, ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—50%	Delivered
	Ditto	Fittings, ditto	—50%	Ditto
	Ditto	Tubes, galvanised	—35%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	4/2	Per foot cube d/d
	Ditto	Portland	5/8	
	Ditto	York	6/9	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″ × 6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto. perforated	4*d.*	Per foot super.

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"The Building Trade," 1913.

FRIDAY, MAY 4, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

BARROW-IN-FURNESS.—May 18.—For alterations to the Municipal Offices, for the Corporation. The Borough Engineer, Town Hall, Barrow in-Furness.

BRIDLINGTON.—May 8.—For erection of residence, Marton Road, for Mr. T. Readhead. Mr. C. F. Johnson, M.S.A., architect and surveyor, St. John's Avenue, Bridlington.

CLACTON-ON-SEA.—May 14.—For erection of 16 houses in Central Avenue, for the Urban District Council. The Surveyor, Council Offices, Station Road, Clacton-on-Sea.

CLITHEROE.—May 14.—For erection of ten pairs of semi-detached houses on the Henthorn Road site, for the Corporation. Mr. A. R. Bleazard, borough engineer, Church Street, Clitheroe.

DUMBARTON.—For the following works connected with erection of 40 houses—viz., excavator, brick and concrete; plumber; wright; gasfitter; glazier; plaster; slater and roughcast, for the Town Council. Mr. A. Macartney, burgh engineer, Dumbarton, or Messrs. John H. Allan and Sons, 224, St. Vincent Street, Glasgow.

FENNY STRATFORD.—May 15.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of a repeater station at Fenny Stratford. Deposit £1 1s. The P.O., Bletchley, and at the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

GLAMORGAN.—May 11.—For the following works, for the Glamorgan County Council, subject to their usual general conditions—viz.: (1) new mixed and infants' school at Pontyclun (Llantrisant), to accommodate 450 scholars; (2) Glyncorwg Council School, rebuilding cloakroom and executing sundry repairs at the infants' department. The Glamorgan County Hall, Cardiff.

GLASGOW.—May 8.—For the following works in connection with proposed erection of 52 houses at Kelvindale, for the Corporation—viz.: (1) mason and brick works; (2) carpenter and joiner works; (3) slater, &c., work; (4) plumber work; (5) plaster work; and (6) glazier work. Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

GLASGOW.—May 12.—The Commissioners of His Majesty's Works, &c., invite tenders for the extension of the Parkhead Employment Exchange, Glasgow. Tenders are required for the whole work and not for separate trades. Deposit £1 1s. H.M. Office of Works, 4, Dunlop Street, Glasgow, and H.M. Office of Works, 4–5, Drumsheugh Gardens, Edinburgh.

HAMPTON.—May 28.—For additions to the Isolation Hospital, Uxbridge Road, Hampton Hill (new observation block and alterations and additions to administrative block, &c., for the Hampton Urban District Council. Deposit £2 2s. Mr. S. H. Chambers, surveyor to the Council, Public Offices, Hampton, Middlesex.

HATFIELD, HERTS.—May 15.—For erection of 24 houses at Ground Lane, for the Hatfield Rural District Council. Deposit £2 2s. Messrs. Crickmer & Foxley, architects, 1, Lincoln's Inn Fields, London, W.C.2.

HOVE.—May 23.—For erecting 20 small houses in Ingram Crescent, for the Town Council. Deposit £2 2s. The Borough Surveyor's Office, Town Hall, Hove.

HUDDERSFIELD.—May 17.—For the various works required in erection of two semi-detached houses in Newsome Road South. Messrs. Lunn and Kaye, architects and surveyors, Milnsbridge, Huddersfield.

LEEDS.—For any of the several works required in erection of house and shop, Cardigan Road. Messrs. F. Mitchell & Sons, architects and surveyors, 9, Upper Fountaine Street, Albion Street, Leeds.

LEEDS.—May 23.—The Commissioners of His Majesty's Works, &c., invite tenders for the erection of a new telephone exchange at Chapeltown, Leeds. Deposit £1 1s. H.M. Office of Works, Infirmary Street, Leeds, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LISKEARD.—May 9.—For erection of a new farmhouse at Trenant Farm, Liskeard, for the Cornwall County Council. Deposit £1 1s. The County Land Agent, County Hall, Truro.

LITHERLAND.—May 12.—For erection of fifty houses on the Moss Lane housing site, for the Urban District Council, Mr. G. Ponsford, M.Inst.M. & Cy.E., engineering and surveyor. Council Offices, Sefton Road, Litherland.

LONDON.—May 8.—For erection of a verandah at their children's infirmary at West Norwood, for the Lambeth Board of Guardians. Deposit £2. Mr. J. L. Goldspink, clerk, Brook Street, Kennington Road, S.E.11.

MAESTEG.—May 14.—The Housing Committee invite amended tenders on a fixed basis, for the erection complete of an additional 20 houses on the Park Site, Maesteg. Deposit £2 2s. Mr. S. J. Harpur, M.S.A., architect and surveyor, Talbot Street, Maesteg.

MANCHESTER.—May 19.—For the erection of a complete building, including foundations, steelwork, drains, &c., for the new Dickinson Street Sub-station and offices, for the Electricity Committee. Deposit £2 2s. Mr. F. E. Hughes, secretary, Electricity Department, Town Hall, Manchester. Mr. S. L. Pearce, Chief Engineer and Manager, Dickinson Street, Manchester.

NEWBRIDGE.—For proposed hall at Newbridge (Mon.), for the Celynen Collieries' workmen. Deposit £2 2s. Mr. E. D. T. Jenkins, architect, Somerset Chambers, Newbridge, Mon.

NOTTINGHAM.—For ladies' lavatory, Nottingham Forest, new bathroom and other additions at the Arboretum Rooms, for the Public Parks Committee. Mr. T. W. Gordon, city engineer and surveyor, Guildhall, Nottingham.

OLDHAM.—May 30.—The Surveyor's and Buildings Committee invite tenders for lump-sum or separate trades for erection of 150 houses on the Greenacres and Barrowshaw housing sites. Send application and 10s. 6d. deposit by May 7 to the Borough Surveyor's Office, Town Hall, Oldham.

PENISTONE.—May 10.—The West Riding Education Committee invite whole or separate tenders for the following works: Penistone Grammar School—erection of new scullery. Trades: (1) mason, bricklayer, concretor, and excavator; (2) joiner and carpenter; (3) plumber; (4) plasterer; (5) slater. The Education Department, County Hall, Wakefield.

PLYMOUTH.—May 15.—For erection of two bathing houses (men's and women's) and conveniences at the Mount Wise Swimming Baths, for the Corporation. Deposit £2 2s. Mr. T. Peirson Frank, borough engineer, Municipal Offices, Plymouth.

PONTYPRIDD.—For proposed crematorium at Glyntaff Cemetery, Treforest, Pontypridd, for the Pontypridd Burial Board. Deposit £1 1s. Mr. J. E. Spickett, clerk, Pontypridd, or Mr. H. G. Malcolm Laing, architect, 9, Old Square, Lincoln's Inn, W.C.2.

SHEFFIELD.—May 12.—For taking down and re-erection of the river wall on the western boundary of Smithfield Market, for the Markets Committee. Deposit £3. The Improvement Surveyor, Town Hall, Sheffield.

STAINES.—May 19.—For painting and decorating the interior of the Town Hall, together with certain repairs in the building, for the Urban District Council. Mr. E. J. Barrett, A.M.Inst.C.E., engineer and surveyor, Town Hall, Staines.

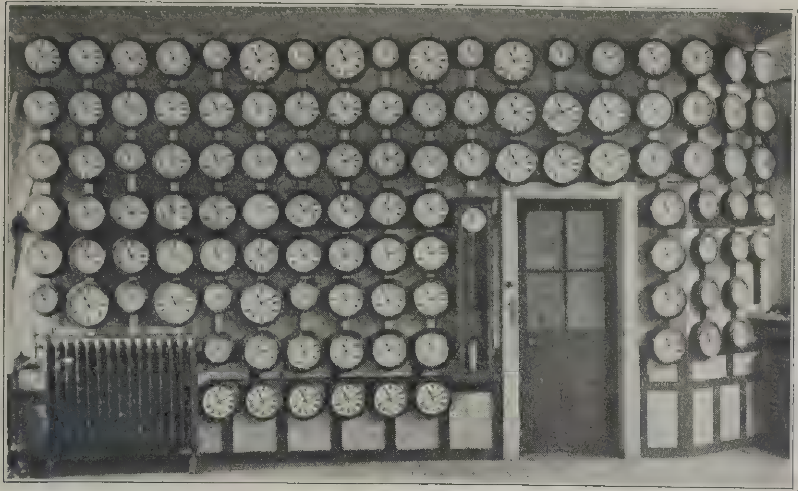
STOKE-ON-TRENT.—May 9.—For execution of alterations to a portion of "A" block at the London Road Institution, for the Guardians. Mr. A. R. Piercy, architect, Union Offices, Stoke-on-Trent.

SUTTON.—May 23.—For structural and sanitary alterations at the Downs Hospital for Children, Banstead Road, for the Metropolitan Asylums Board. Deposit £1. Mr. T. Cooper, M.I.C.E., &c., engineer-in-chief, the Office of the Board, Victoria Embankment, E.C.4.

SWANSEA.—May 9.—For erection of 50 houses on the May Hill estate, for the Housing of the Working Classes Committee. Deposit £3 3s. Mr. E. E. Morgan, A.R.I.B.A., borough architect, 3, Prospect Place, Swansea.

TREFEGLWYS (MONTGOMERY).—May 26.—For erection of memorial hall, near Gleiniant Chapel, Trefeglwys. Deposit £3 3s. Messrs. Davies & Hill, architects and surveyors, Severn Square, Newtown.

WESTON-SUPER-MARE.—May 15.—The Commissioners of His Majesty's Works, &c., invite tenders for the extension of the post office. Deposit £1 1s. The Post Office, Weston-super-Mare, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.



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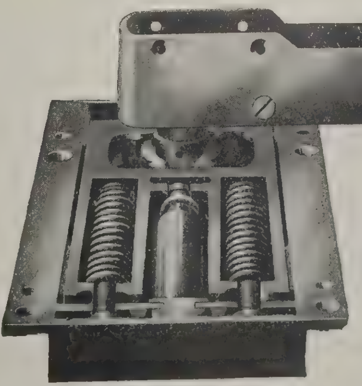

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CURRENT LONDON PRICES.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅓th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced: In small quantities	Per Ft. Super reduced: In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube: To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast .. .. .. Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	Earthenware 6 in.	Iron 4 in.	Iron 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced: Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	558/0	705/0	1039/0
„ „ cement mortar	588/0	735/0	1069/0

Damp course	Per Foot Super.: Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
½-in. asphalte	10*d.*	1/3

Facings	Per Foot Super.: Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost ..	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super.: 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/0

MASON.

	Per Foot Cube: Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	1½in. 4 Panel	2in. 4 Panel	2in. 6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2¼*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube: Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

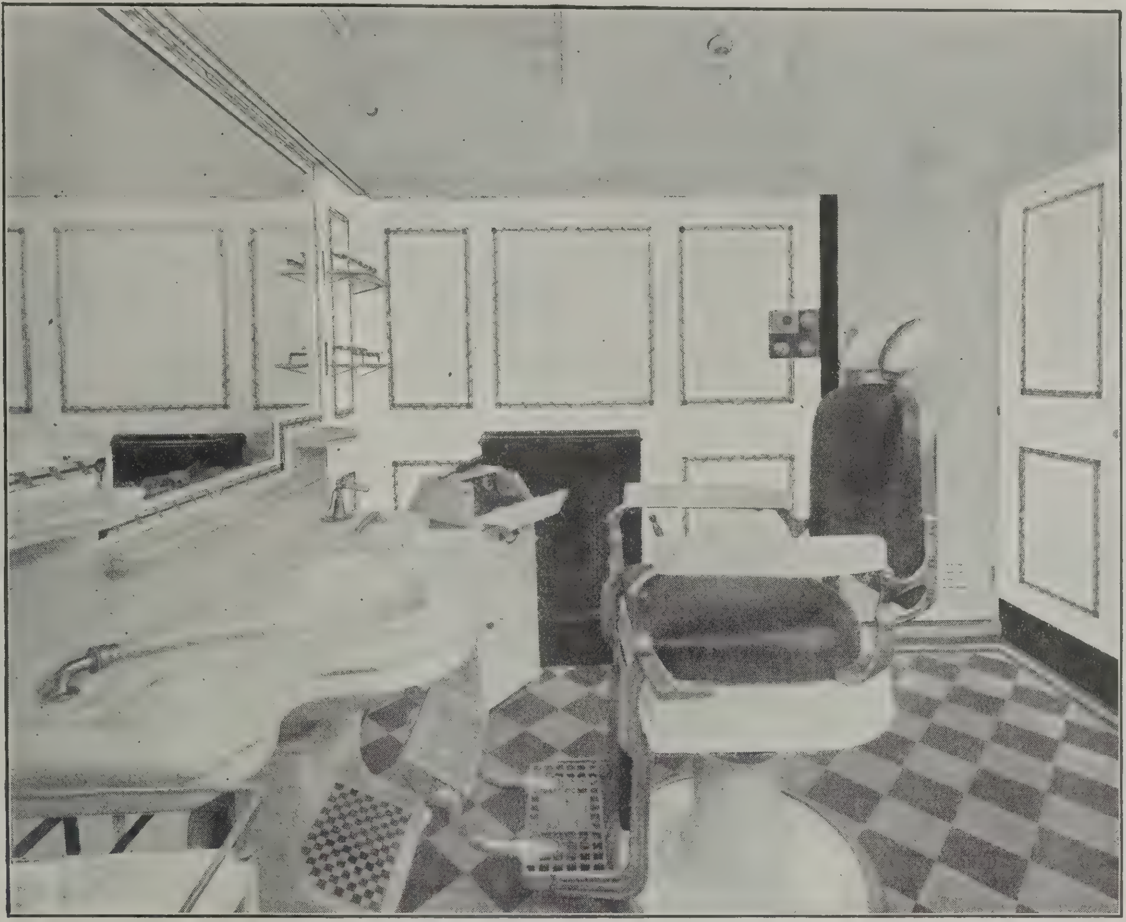
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area: 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.



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Telephone : Victoria 9777

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	45/6	52/0	55/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints ..	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		2in.	4in.
		Per Foot Run	
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Countess	Ladies
	Per Square	
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Up to 1st Floor	Above 1st Floor	
	Per Cwt.		
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	2in.	3in.	4in.
	Per Foot Run		
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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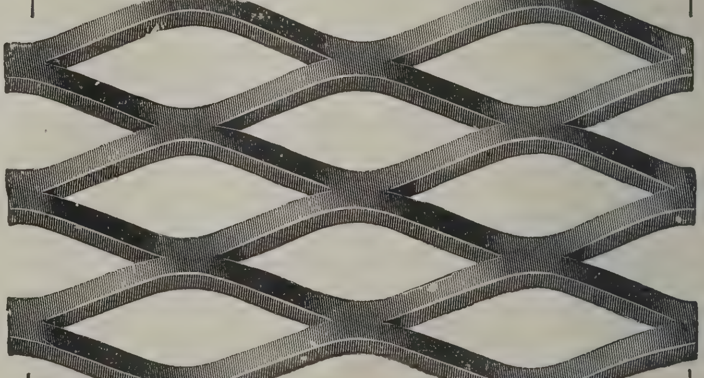

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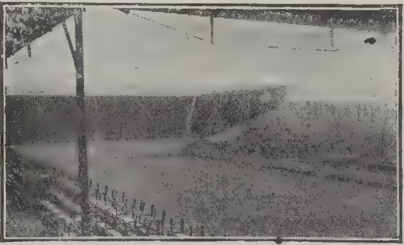

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	Size *Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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L.B.C. Phorpres Prices Revised

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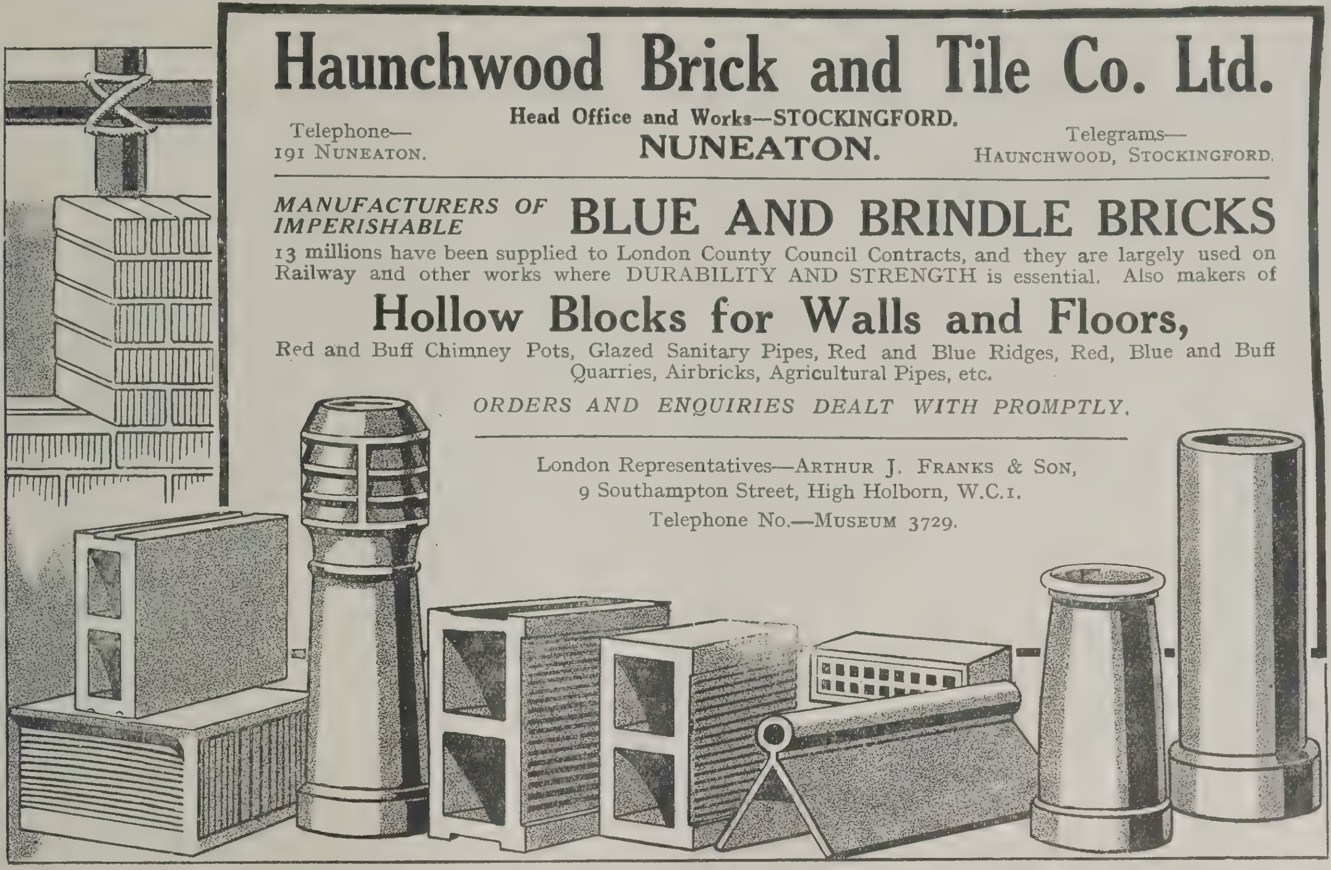

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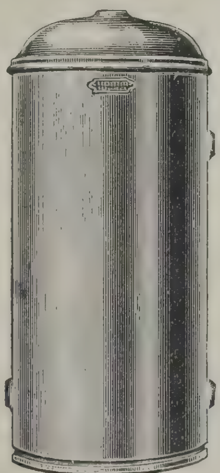

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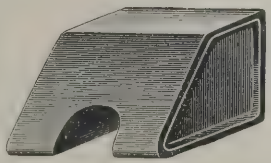

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11		
1921–July 1	2/2	2/1	1/10	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

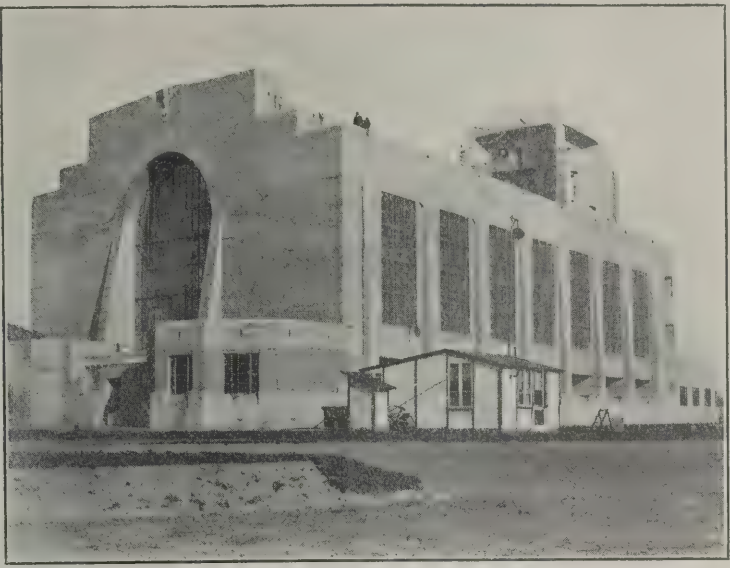
All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2″	2/6	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	53/3	
	Ditto	Reds	110/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 60%	Delivered
	Ditto	Fittings, ditto	— 60%	Ditto
	Ditto	Tubes, galvanised	—47½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ⅛″	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 55%	Delivered
	Ditto	Fittings, ditto	— 55%	Ditto
	Ditto	Tubes, galvanised	— 41¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9″×3″	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7″×2½″	3/2	
	Ditto	Ditto, ditto, 6″×2″	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/0	Per cwt.
	Ditto	Pipe	35/6	Ditto
	Ditto	Soil	38/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	Gutters, O.G.	2/0 2/4	Per yard d/d
			3″ 4″	
	Ditto	Pipes, round	2/0 2/9	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20″×10″, Welsh	430/0	Per 1,000
	Ditto	14″×9″, ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4″	4/4	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—50%	Delivered
	Ditto	Fittings, ditto	—50%	Ditto
	Ditto	Tubes, galvanised	—35%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	3/9	Per foot cube d/d
	Ditto	Portland	5/3	
	Ditto	York	6/0	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2″ 4″	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6″×6″, white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½″ 2″	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2″ 4″	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super.



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"The Building Trade," 1913.

FRIDAY, MAY 11, 1923.

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ALLERTON.—May 16.—For erection of a shippon, to accommodate 28 cows, at Oak Farm, Allerton, for the Liverpool Corporation. The City Engineer's Office, Municipal Buildings, Dale Street, Liverpool.

BLACKBURN.—May 23.—The Commissioners of His Majesty's Works, etc., invite tenders for alterations to the Employment Exchange. The Manager, Employment Exchange, Blackburn, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

BOTLEY.—May 19.—For erection of church and Sunday schools at Hedge End, Botley, Hants. Mr. W. H. Masters, F.S.I., architect, Freemantle Lodge, Foundry Lane, Southampton.

CLACTON-ON-SEA.—For reconstruction of the Town Hall buildings, comprising a revision of the Operetta House and conversion of offices recently vacated by the Urban District Council, into shops, etc. Deposit £1 1s. Mr. W. H. Wrightson, Licentiate R.I.B.A., architect, Station Chambers Station Road, Clacton-on-Sea.

CRAGHEAD COLLIERY, DURHAM.—For building 12 aged miners' houses and three checkweighers' houses at Craghead Colliery, for the Craghead Miners' Association. Mr. T. Welsh, Holly Terrace, Stanley.

DAGENHAM BEACONTREE.—May 26.—For erection of an elementary school at Dagenham Beacontree for 1,050 children, for the Essex County Council. Deposit £2 2s. Mr. J. Stuart, F.R.I.B.A., county architect, Springfield Old Court, Chelmsford.

DARLINGTON.—May 18.—For supply and erection of a cooling tower, for the Corporation. The Borough Electrical Engineer, Electricity Works, Haughton Road, Darlington.

EDINBURGH.—May 26.—For an extension to the James Clark School, for the Edinburgh EducationalAuthority. Separate schedules for mason and brick, steel, carpenter, joiner and glazier, slater and harling, plaster, plumber, and asphalte works. Mr. J. Stewart, S.S.C., executive officer, Edinburgh.

GLASGOW.—May 18.—For the various works required in erection of a curator's house and bowling pavilion at Glenconner Park, for the Corporation. Mr. J. Whitton, director of parks, 249 George Street, Glasgow.

HALIFAX.—May 16.—For 54 houses, Sandbeds site (Moor End Road and Jacob Lane), for the Corporation. Contractors desirous of tendering for the excavators, masons and bricklayers, carpenters and joiners, slaters and plasterers, plumbers and glaziers, painters, electricians, or "all trades," in connection with the above are invited to forward names, and deposit £2 2s. by May 16 to Mr. A. C. Tipple, borough engineer.

HAMPTON.—May 28.—For additions to the Isolation Hospital, Uxbridge Road, Hampton Hill (new observation block and alterations and additions to administrative block, etc.), for the Urban District Council. Deposit £2 2s. Mr. S. H. Chambers, surveyor, Public Offices, Hampton, Middlesex.

ILFORD.—May 21.—For erection of extension to workshops at the Electricity Works, Ley Street, Ilford, for the Ilford Urban District Council. Deposit £1 1s. Mr. H. Shaw, M.I.C.E., engineer and surveyor, Town Hall, Ilford.

KING'S LYNN.—For erection of a shop and warehouse, Norfolk Street. Mr. L. F. Eagleton, architect, King Street, King's Lynn.

LEEDS.—May 23.—For erection of 150 type A houses and 50 type B houses on the Middleton housing estate, Middleton, Leeds, for the Corporation. Deposit £1 1s. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds.

LEICESTER.—May 31.—For the building work required in the extension of the central generating station on the Freemens Meadow, to accommodate one 10,000 kw. turbo-alternator, boilers and accessory plant, for the Electricity Department. Deposit £2 2s. Mr. W. Keay, M.I.C.E., architect, 6 Millstone Lane, Leicester.

LOCKWOOD.—May 18.—For the masons', joiners', slaters', plasterers', painters', and concreters' work required in erection of bungalow, Woodside Road, Lockwood. Mr. J. Ainley, architect and surveyor, 3, Chapel Hill, Huddersfield.

LONDON.—May 24.—For sundry alterations at the house and hospital at Raine Street, Old Gravel Lane, E.1, for the Guardians. Mr. R. M. Lochner, clerk, Raine Street, Old Gravel Lane, E.1.

LONDON.—May 28.—For the construction of foundations for a new installation of engines and pumps, boiler foundations and economiser house, and the construction of a new pumping main between the engine-house and the northern outfall sewers, and other works in connection therewith, at the Council's Abbey Mills pumping station, West Ham, for the London County Council. Deposit £5. The Chief Engineer, the Old County Hall, Spring Gardens, S.W.1.

LONDON.—May 28.—For extension of the Meter Testing Shop at New River Head, Finsbury, E.C., for the Metropolitan Water Board. Deposit £5. Mr. H. Stilgoe, M.Inst.C.E., chief engineer, Room 171, 173 Rosebery Avenue, E.C.1.

LONDON.—May 29.—The Commissioners of His Majesty's Works, etc., are prepared to receive tenders for erection of a new telephone exchange at Albert Dock, London, E. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LLANTWIT MAJOR.—For erection of a house. Mr. J. H. Davies, architect and auctioneer, County Chambers, Pontypridd.

LUDWORTH.—May 26.—For erection of twelve "Type A" houses at Ludworth, for the Durham Rural District Council. Deposit £3 3s. Mr. G. Gregson, surveyor, 38 Saddler Street, Durham.

MATLOCK.—For alterations and improvements at Wyvern Hydro upon its conversion to a secondary school, for the Ernest Bailey (New) Secondary School. Deposit £1 1s. Mr. G. H. Widdows, F.R.I.B.A., County Offices, St. Mary's Gate, Derby.

MIDDLESBROUGH.—May 19.—For the various works or alterations and extensions to St. Cuthbert and St. Vincent's Wards, North Ormesby Hospital. Mr. J. Forbes, Licentiate R.I.B.A., 19 Grange Road, W., Middlesbrough.

MORLEY.—May 15—For erecting sanitary conveniences in Wellington Street, for the Health Committee. Mr. F. Turner, B.Sc., A.M.I.C.E., borough engineer, Town Hall, Morley.

ROMSEY.—May 26.—For alterations, including new offices, gravelling playgrounds, etc., at Romsey Girls' and Infants' Council School, for the Hants County Council. Deposit £1 1s. Mr. A. L. Roberts, county architect, The Castle, Winchester.

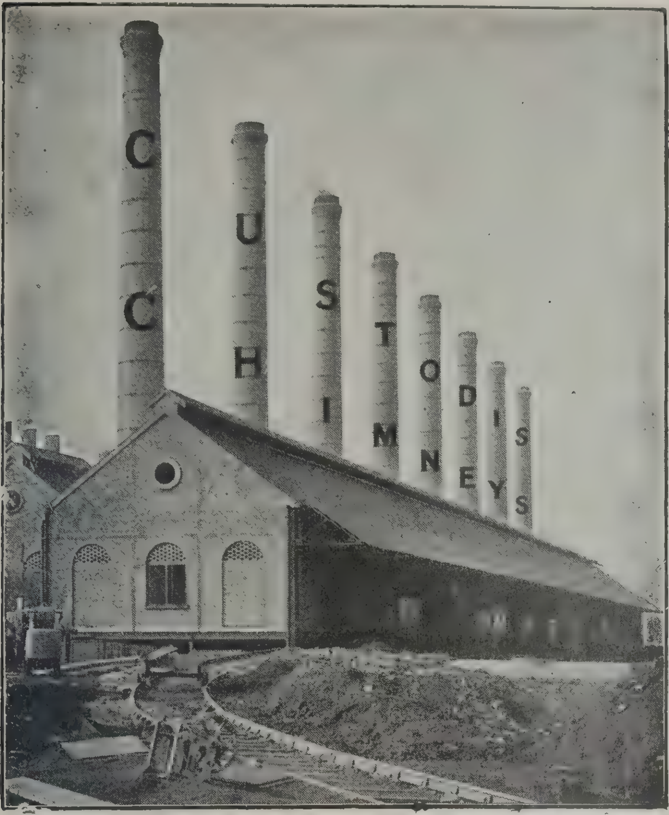
SWINDON.—May 21.—For extensions to fire station, Cromwell Street, for the Corporation. The Borough Surveyor, 34 Regent Circus, Swindon.

TAUNTON.—May 30.—For erection of four cottages on the Hospital estate, for the Committee of the Somerset and Bath Mental Hospital, Cotford, near Taunton. Mr. A. W. Caley, clerk to the Visiting Committee, The Hospital, Cotford.

THURCROFT.—May 16-23.—The West Riding Education Committee invites whole or separate tenders for erection of a school at Thurcroft, near Rotherham. Trades :—(1) Excavator, bricklayer and mason, (2) carpenter and joiner, (3) slater, (4) plumber and glazier, (5) plasterer, (6) painter, (7) ironfounder and smith, and (8) asphalter. The Education Department, County Hall, Wakefield.

WADSWORTH.—May 18.—For erection of a monument at Smeaking Hill, near Pecket Well, Wadsworth, for the War Memorial Committee. Mr. A. D. Parker, surveyor, Cam Head, Pecket Well.

WARRINGTON.—May 21.—For the formation of verandahs and alteration to maternity ward at the Whitecross Institution, for the Guardians. Deposit £1. Mr. A. Bottomley, clerk, Bewsey Chambers, Warrington.



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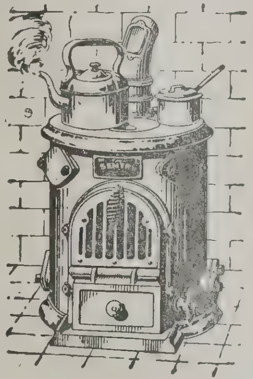

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto..	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3 9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast .. .. .. Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	558/0	705/0	1039/0
„ „ cement mortar	588/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost..	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price..	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	⅛*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	45/6	52/0	55/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

	Per Square	
ROOFING	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.		
	Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

	Per Foot Run		
Rain-water Goods	2in.	3in.	4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

REDUCTIONS *in* FLETTONS

L.B.C. Phorpres Prices Revised

We beg to announce that the **FULL BENEFIT of ALL REDUCTIONS** in railway rates from May 1st will be given to customers on all deliveries from that date. Please write for new prices delivered to Station or Site.

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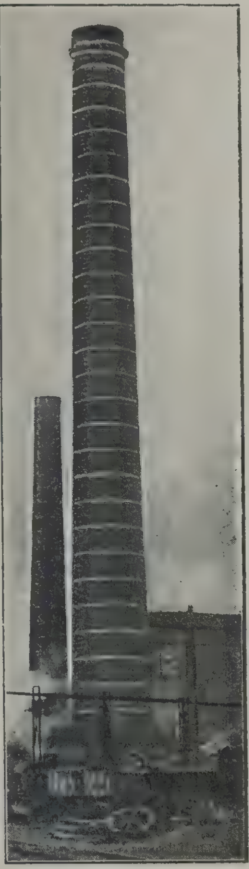

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run: Gas ½in.	Gas ¾in.	Steam Tubing ½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run: Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super: Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

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On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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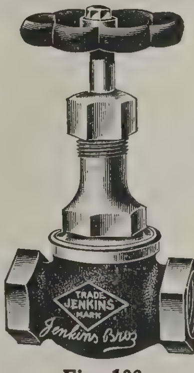

Fig. 106.

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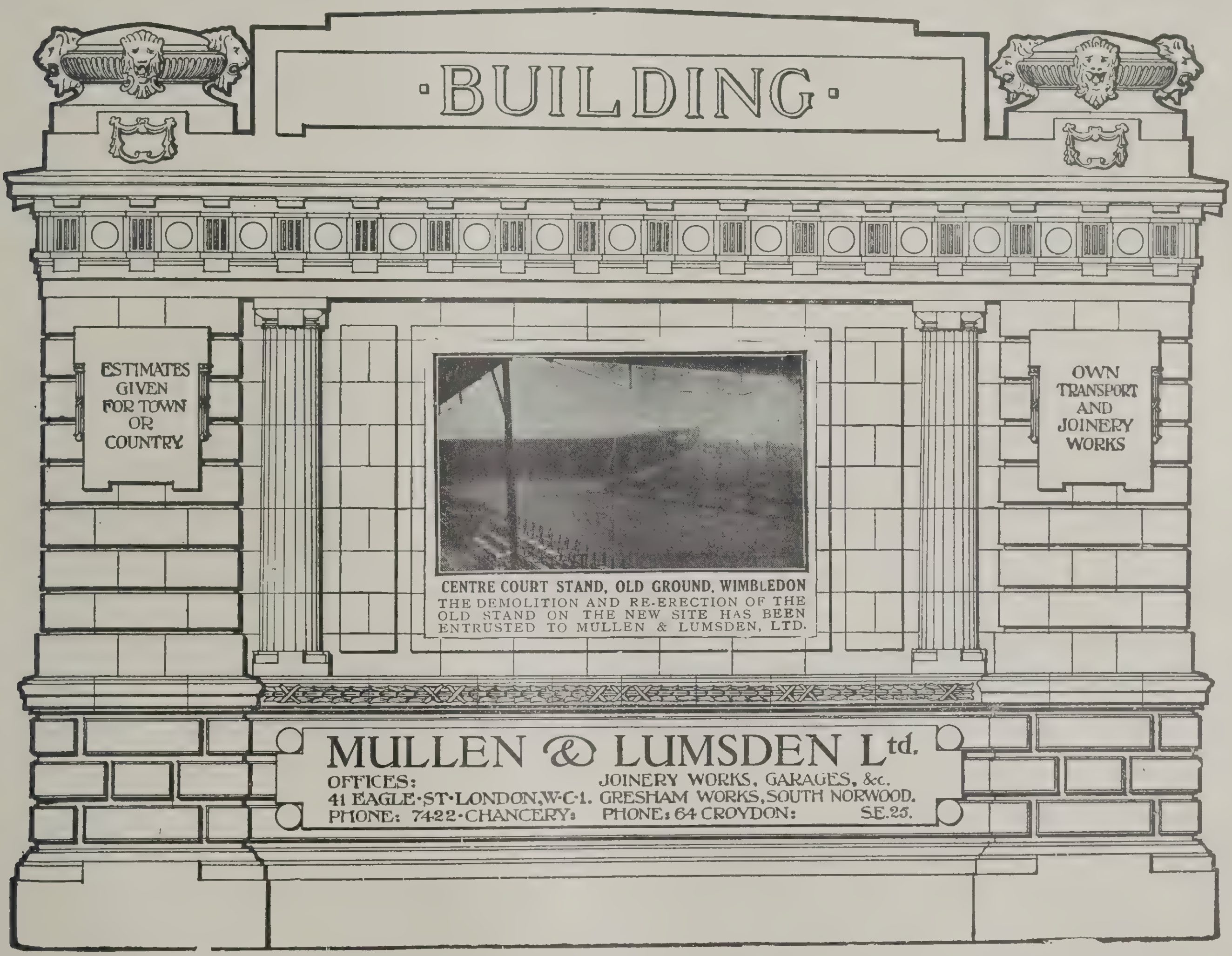

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0½	11½*d.*		
1918–Jan. 11	1/3½+12½%	1/0½+12½%	11½+12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	3/0	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	53/3	
	Ditto	Reds	110/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼"	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 45%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 31¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/0	Per cwt.
	Ditto	Pipe	35/6	Ditto
	Ditto	Soil	38/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. & B	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/2 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/2 3/0	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4"	5/1	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—40%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—25%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	3/9	Per foot cube d/d
	Ditto	Portland	5/3	
	Ditto	York	6/0	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto. perforated	4*d.*	Per foot super.

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"The Building Trade," 1913.

FRIDAY, MAY 18, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

*** *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

BISHOP AUCKLAND.—May 26.—For new filter house at West Mill waterworks as follows, for the Urban District Council: (1) Roof work, carpentry, etc.; (2) plastering and floor laying; (3) plumbing and heating; and (4) electric lighting. The Waterworks Manager's Office, Town Hall Buildings, Bishop Auckland.

BROMLEY.—May 28.—For works of repair to their houses in Burlings Lane, Knockholt, for the Bromley Rural District Council. Mr. W. J. Winter, surveyor, Maulden House, Sidcup.

CAMBRIDGE.—For alterations and additions, etc., to the Central Cinema: General builder's work, reinforced concrete and steelwork, heating and ventilating, electric light installation, and fibrous plaster work. Mr. C. F. Skipper, 64, St. Andrew's Street, Cambridge.

CEFN-HENGOED.—May 28.—For erection of constitution club at Cefn-Hengoed, for Mr. W. J. Price, Deri. Messrs. W. Harris & Sons, architects, Bargoed.

CHORLEY.—May 28.—For erection of 48 houses on the Brindle Street site, in blocks of 2, 4, and 6, for the Corporation. Tenders may be submitted for one or more blocks. Deposit £2 2s. The Borough Surveyor.

DURHAM.—May 28.—The Durham County Council Education Department invites separate tenders for the following, viz.:—(1) Kimblesworth Council School—alterations and improvements to out-offices and drainage; (2) South Moor Infants' Council School—alterations and improvements to out-offices and drainage. Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham.

EDINBURGH.—May 23.—The Town Council invites tenders (in one undertaking) for the several works required in connection with erection of (1) ladies' shelter and convenience at Redhall Public Park, and (2) convenience at Bloomiehall Public Park. Mr. J. A. Williamson, A.R.I.B.A., city architect, City Chambers, Edinburgh.

ELLESMERE PORT.—May 28.—For erection of (*a*) 168 houses in blocks of four, and (*b*) 36 semi-detached houses at Ellesmere Port, for the Ellesmere Port and Whitby Urban District Council. The Surveyor, Council Offices, Ellesmere Port.

EXETER.—May 19.—For adapting the premises of "Honeylands" for a sanatorium, for the Exeter City Council. Deposit £2. The City Architect, 2 Southernhay West, Exeter.

FAWDON.—May 26.—For erection of eight houses at Fawdon, near Coxlodge Station, for the Guardians of Castle Ward Union. Mr. J. Jameson, sanitary surveyor, "Fernlea," Ponteland.

FOCHRIW.—May 26.—For erection of 12 houses on the Fochriw housing site, for the Gellygaer Urban District Council. Deposit £2 2s. Mr. P. J. Williams, architect, Council Offices, Hengoed, Glam.

GORLESTON.—June 4.—For construction of a timber tramway shelter at Gorleston, for the Great Yarmouth Town Council. Mr. S. P. Thompson, A.M.I.C.E., borough engineer, Town Hall, Great Yarmouth.

HUNSLET.—June 7.—For erection of 39 cottages at Halton, near Leeds, for the Hunslet Rural District Council. Messrs. E. G. Allen & Partners, F.R.I.B.A., etc., architects, 11 Arundel Street, Strand, W.C.2. Send application and £1 1s. deposit by May 25 to Mr. W. B. Pindar, clerk, Leek Street, Hunslet, Leeds.

LEADGATE, DURHAM.—May 23.—For carrying out proposed rebuilding of Church of England School, Leadgate. Send names and £1 1s. deposit by May 23, to Mr. J. J. Eltringham, L.R.I.B.A., architect and surveyor, Derwent Street, Blackhill.

LIVERPOOL.—For erection of offices at Cornholme Works, Garston, for Messrs. Wilson Brothers' Bobbin Co., Ltd. Deposit £2 2s. Mr. H. L. Goldsmith, architect, 62 Dale Street, Liverpool.

LIVERPOOL.—May 28.—For plumbing, joinery, painting and general repairs at the Old Industrial School premises, Everton Terrace, Netherfield Road South, for the Corporation. Send application by May 22 to the Land Steward and Surveyor, Municipal Buildings, Liverpool.

LONDON.—May 24.—WORKS.—For works to be carried out at the St. Pancras House, 4 King's Road, N.W.1, and the St. Pancras Hospital adjoining, for the St. Pancras Board of Guardians. Mr. B. Chapman, clerk, Town Hall, Pancras Road, N.W.1.

LONDON.—May 31.—For erection of (*a*) staff house at the Shirley Schools, Wickham Road, Shirley, near Croydon; and (*b*) balconies at the Bermondsey and Rotherhithe Hospital, Lower Road, Rotherhithe, S.E., for the Bermondsey Board of Guardians. Messrs. Newman & Newman, architects. Send application and £5 deposit between May 18 and 24, to Mr. H. H. Reeve, clerk, Guardians' Offices, 283, Tooley Street, S.E.1.

MAIDENHEAD.—May 23.—For erection of a general office in connection with their power station in Braywick Road, for the Electric Lighting Committee. The Borough Surveyor, Guildhall, Maidenhead.

MANCHESTER.—May 30.—For alterations and repairs to dwellings at the Pollard Street fire station, for the Watch Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MERTHYR TYDFIL.—May 28.—For erection of new offices at the workhouse. Deposit £2 2s. Messrs. Thomas Roderick & Sons, architects, Clifton Street, Aberdare.

NEWPORT, MON.—May 26.—For erection of six (or ten) houses in Corporation Road, for the Electricity and Tramways Committee. Deposit £2 2s. The Borough Engineer, 8 Corn Street, Newport, Mon.

OXTON.—May 28.—For the mason, joiner, plumber and plaster works, or for the whole work in connection with the Oxton War Memorial Hall. Mr. R. M. L. Matthewson, hon. secretary, Argyll Cottage, Oxton, Berwickshire.

PANNAL.—For the several trades required in erection of a small house at Pannal, Yorks. Messrs. Empsall & Clarkson, architects and surveyors, 7 Exchange, Bradford.

PLYMOUTH.—For erection of a pair of semi-detached houses in Efford Road, Higher Compton, Plymouth. Deposit £8 8s. Mr. E. H. A. Barron, architect, 11 The Crescent, Plymouth.

RYHOPE.—For erection of 10 cottages at Ryhope, to be known as "The Ryhope Aged Mineworkers' War Memorial Homes." The Engineer's Office, Ryhope Colliery, near Sunderland.

ST. ALBANS.—May 23.—For extension of men's ward and additional accommodation for staff at the St. Albans and Mid-Herts Hospital and Dispensary, Church Crescent. Deposit £2. Mr. H. R. Finn, L.R.I.B.A., architect, 4 Victoria Street, St. Albans.

ST. ASAPH.—May 25.—For erection of a nurses' home and alterations to existing infirmary buildings, for the Guardians. Deposit £2 2s. Mr. F. A. Roberts, architect, Earl Road, Mold.

SKELMANTHORPE.—May 24.—For the pulling down and rebuilding Wesleyan Reform Church, Gib Lane. Specifications and quantities for the various trades, builders, joiners, plumbers, slaters, plasterers, heating engineers. Mr. F. Haigh, secretary, Wood Street, Skelmanthorpe, near Huddersfield.

STAINLAND, YORKS.—May 22.—For the various trades in erection of a shed at Dog Lane Mills, Stainland, for Messrs. B. Taylor & Sons. Send names by May 22 to Messrs. C. F. L. Horsfall & Son, architects, Lord Street Chambers, Halifax.

STOCKPORT.—May 29.—For the manual and team labour and materials required in erection of a sub-police station (bungalow type) in Hooley Range, Heaton Moor, Stockport, for the Watch Committee. Deposit £2 2s. Mr. H. Hamer, A.M.I.C.E., borough surveyor, Town Hall, Stockport.

WAKEFIELD.—For erection of two houses in Bromley Mount, Haddingley Hill. Send names to Mr. W. H. H. Watson, F.S.A., architect, Barstow Square, Wakefield.

WAKEFIELD.—For erection of villa residence in Carr Lane, Milnthorpe. Send names to Mr. W. H. Watson, F.S.A., architect, Barstow Square, Wakefield.

WATH-UPON-DEARNE.—June 11.—For erection of 62 houses (non-parlour type), and also six shops on their housing estate at Wath-upon-Dearne, for the Council. The houses will be in blocks of two and four, and tenders may be for the whole or any number of blocks. Send application and £2 deposit by May 23 to Messrs. Nicholson & Co., Clerks to the Council, High Street, Wath-upon-Dearne, near Rotherham. Mr. W. J. Tennant, architect, Ropergate Chambers, Pontefract.

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building ..	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	 In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft...	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	 6 ft. to 12 ft. deep	 Add if in trench
Excavate in common soil, wheel, fill carts and cart away	10/0	11/6	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast .. .. .. Concrete in foundations	31/0	41/0	3/3
Add if in ground floors	2/0	2/10	3/3
Add if in beams or lintels	3/0	4/0	3/3

	Earthenware 4 in.	 6 in.	Iron 4 in.	 6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	39/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	 Stocks	 Blues
Built in 1 to 3 lime mortar	558/0	705/0	1039/0
„ „ cement mortar	588/0	735/0	1069/0

Damp course	Per Foot Super. Horizontal	 Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	 English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork ..	1/0
Add if of superior bricks for every 7/6 per thousand additional cost ..	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall ..	1/2

PAVIOR.

	Per Yard Super. 1in.	 1¼in.	 1½in.	 2in.	 3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	 Thresholds	 Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	 4 Panel	2in. 4 Panel	 6 Panel
Square frame both sides doors ..	2/0	2/3	2/5	2/8
Add for each side moulded ..	2¼*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt ..	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	 Small	 Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	 2in.	 4in.	 6in.	 9in.	 12in.	 14in.	 16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded ..	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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JOINER—*Continued*.

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	44/6	51/0	54/0

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
		2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.		
	Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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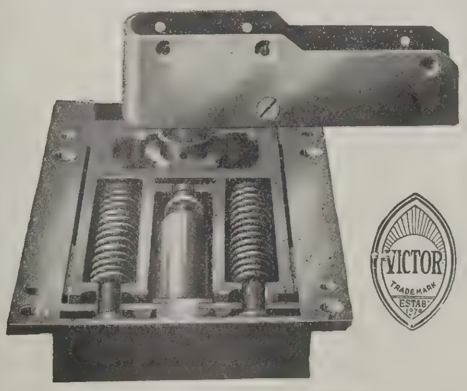

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceiling.	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0¾	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on— Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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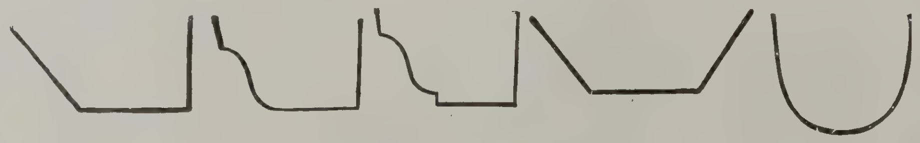

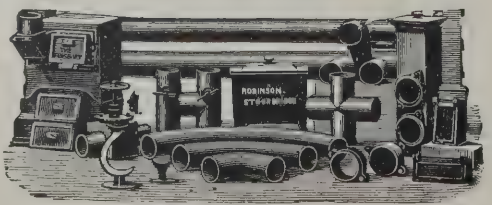

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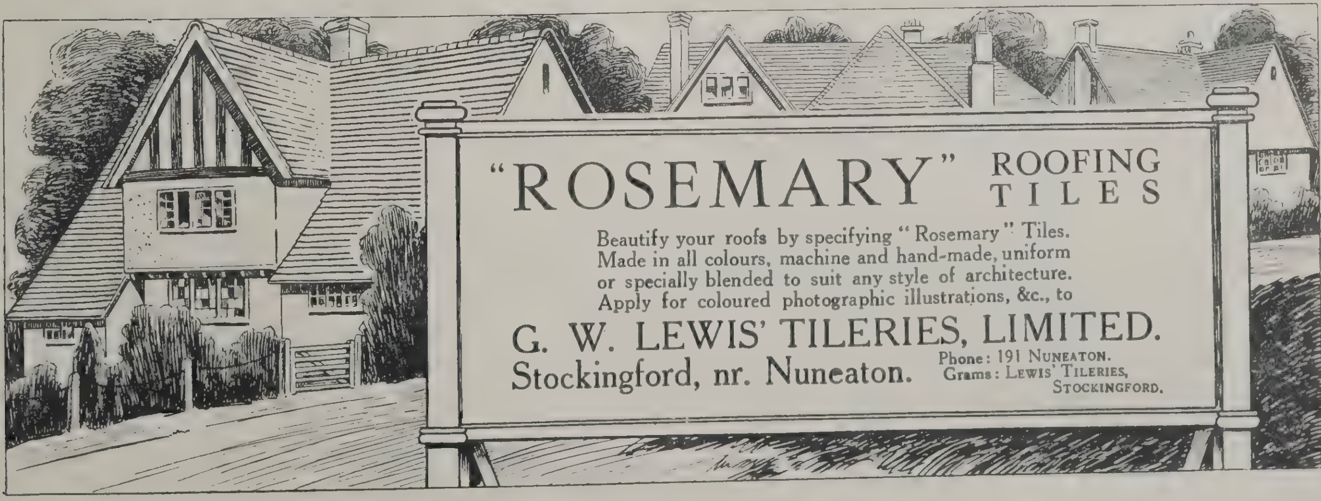

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½ +12½%	1/0¾ +12½%	11¾ +12½%	Plumber	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½ +12½%	1/1½ +12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	3/0	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	53/3	
	Ditto	Reds	110/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/0 7/9	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1½"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼"	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 45%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 31¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9" × 3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7" × 2½"	3/2	
	Ditto	Ditto, ditto, 6" × 2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	34/0	Per cwt.
	Ditto	Pipe	34/6	Ditto
	Ditto	Soil	37/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. &	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/2 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/2 3/0	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20" × 10", Welsh	430/0	Per 1,000
	Ditto	14" × 9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4"	5/1	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—40%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—25%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	3/9	Per foot cube d/d
	Ditto	Portland	5/3	
	Ditto	York	6/0	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6" × 6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super.

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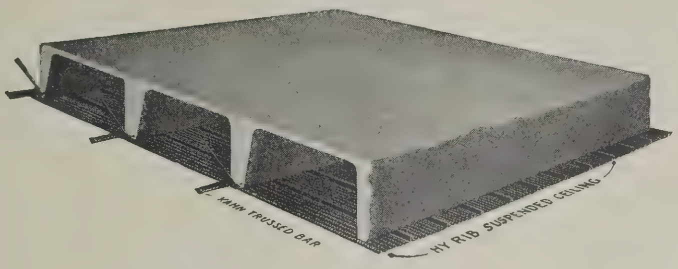
Long Span Slabs
with Flat Ceilings



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THE MORRIS WESTMINSTER METALWORKS
MORRIS HOUSE, ROCHESTER ROW, LONDON, S.W.1
TELEPHONE :: :: :: VICTORIA 6443 (3 LINES)

CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	¼%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3 9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/0	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	3/0
Add if in ground floors	2/0	2/10	3/0
Add if in beams or lintels	3/0	4/0	3/0

	Earthenware 4 in.	6 in.	Iron 4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	39/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
„ „ cement mortar	584/0	730/0	1065/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1½in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	4 Panel	2in. 4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

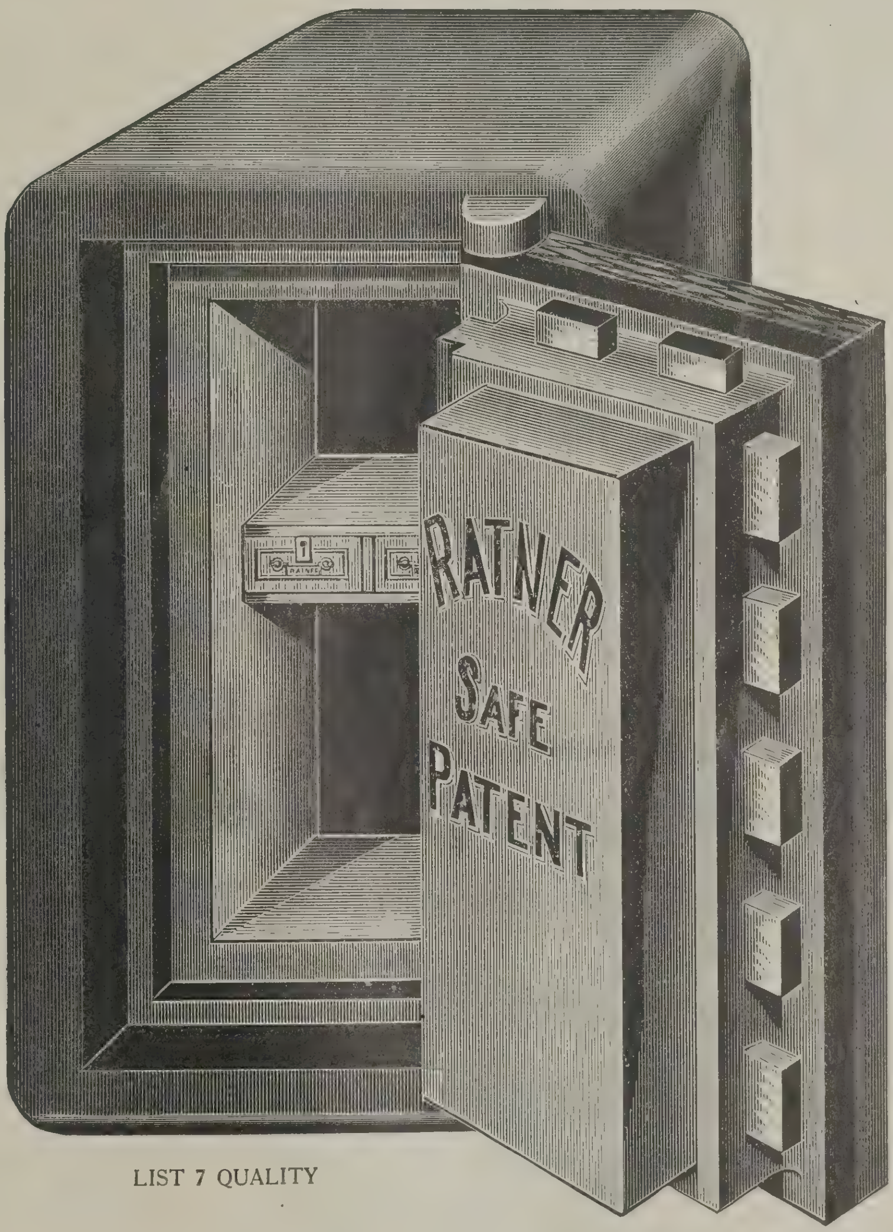
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

Ratner
SAFE COMPANY LTD.



LIST 7 QUALITY

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29, CANNON STREET, E.C.4

Works :
Bromley-by-Bow, E.3

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing

Barrel Bolts	Flush Bolts	Sash Fasteners	Locks and Furniture: Rim	Locks and Furniture: Mortice	Locks and Furniture: Cupboard	Casement: Stays	Casement: Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt. Soakers	Per cwt. Flats	Per cwt. Flashings and Gutters
Milled lead and laying	45/3	51/6	54/6

Per Foot Run: Copper Nailing	Per Foot Run: Soldered Angle	Per Foot Run: Welted Joint	Each: Bossed Ends to Rolls	Each: Cesspools	Each: Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints .. .	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

	Per Foot Run 2in.	Per Foot Run 4in.
Iron (L.C.C.) pipes		
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints	2/0	3/0
Extra for bends .. .. each	7/5	11/2
Extra for junctions .. .. each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Per Square Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Owt. Up to 1st Floor	Per Owt. Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	Per Foot Run 3in.	Per Foot Run 4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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For many years past we have been endeavouring to convince you that PATENT VULCANITE ROOFING is the only reliable roofing material for covering Flat Roofs.

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Owing to these alterations we have been able to obtain possession of a small piece of our VULCANITE ROOFING. It is in as good condition as the day it was laid and still remains perfectly pliable.

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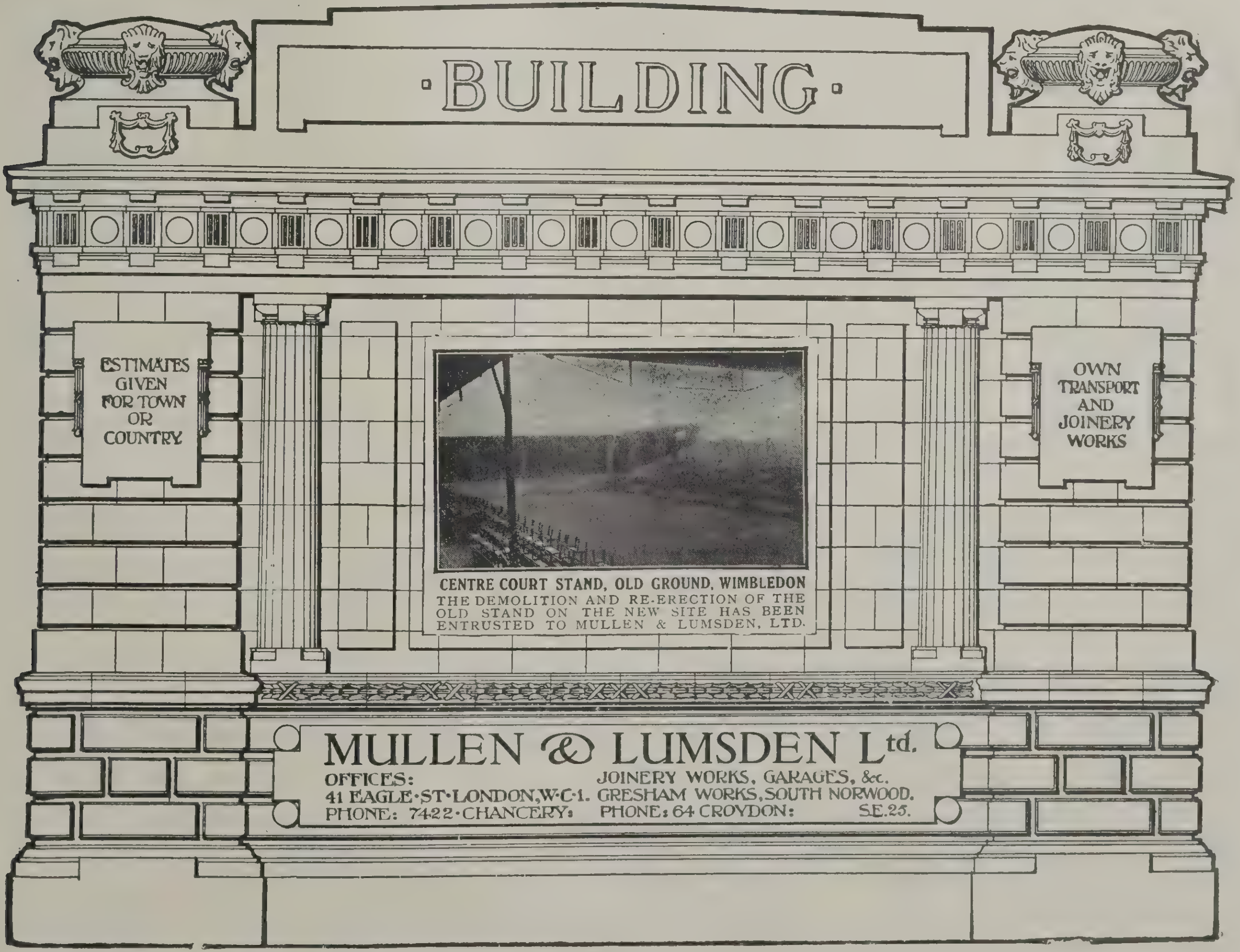
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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/4	0/4¾	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/5	0/5	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/8	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	2/0	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0¾	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d.* per yard super.										
Stippling ..	Add 2*d.* per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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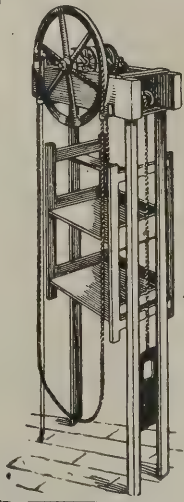

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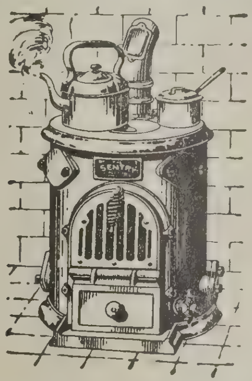

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IMPORTANT

In all sizes of **Sentry** Boilers the waterway extends six inches below the fire bars to allow any sediment to fall to the coolest part of the boiler; this is an absolute necessity in any boiler used for hot water supply if its early destruction through incrustation is to be avoided—Large and well placed mud hole covers readily facilitate the cleaning of the boiler and the removal of the deposit.

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CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3¼	1/0¾	11¾*d.*		
1918–Jan. 11	1/3¼+12½%	1/0¾+12½%	11¾+12½%		
1918–July 27	1/5 +12½%	1/2¼+12½%	1/1¼+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May 26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	Pipes, iron, 2″ ..	3/0	Per yard
	Asbestos ..	Sheeting ..	1/9	Ditto
	Ditto ..	Ditto, corrugated ..	3/6	Ditto
	Aluminium ..	Paint ..	25/0	Per gallon
			2″ ¾″	
B	Ballast ..	Thames ..	10/0 13/6	Per yard cube delivered
	Ditto ..	Pit ..	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves ..	Brass ..	5/6 7/9 13/4	each
	Brick ..	Broken ..	10/6	Per yard cube d/d
	Ditto ..	Hardcore ..	5/0	
	Bricks ..	Blue, wirecuts ..	145/6	
	Ditto ..	Ditto, pressed ..	185/6	Per 1,000 F.O.R. London
	Ditto ..	Firebricks ..	223/0	
	Ditto ..	Fixing, breeze ..	80/0	
	Ditto ..	Flettons ..	53/3	
	Ditto ..	Reds ..	110/0	
	Ditto ..	Rubbers ..	265/0	
	Ditto ..	Stocks ..	92/6	Delivered
	Ditto ..	White ..	100/0	F.O.R. London
	Ditto ..	White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	Ditto headers ..	430/0	
	Ditto ..	2nd quality ..	20/0	Per 1,000 less
	Breeze ..	Coke ..	10/6	Per yard cube d/d
	Ditto ..	Pan ..	5/6	
C	Cartage ..	Of Bricks, blue ..	12/6	Per 1,000 from rail to job.
	Ditto ..	Of ditto, Flettons ..	9/0	
	Ditto ..	Of ditto, glazed ..	15/0	
	Cement ..	Keenes ..	105/0	Per ton delivered
	Ditto ..	Portland ..	58/0	
	Ditto ..	White, ditto ..	312/0	
	Copper ..	Nails ..	1/4	Per lb.
	Ditto ..	Sheeting ..	1/0	Ditto
			½″ ¾″ 1″	
	Cocks ..	Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto ..	Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list ..	–22½%	F.O.R. London
	Ditto ..	Ditto ..	+7½%	Delivered
			4″ 6″	
	Drains, iron ..	Pipes ..	5/0 7/9	Per yard delivered
	Driers ..	For paint ..	60/0	Per cwt.
E	Enamel ..	White, best ..	25/0	Ditto, per gallon
F	Felt ..	Roofing ..	9/7	Delivered, per square
	Fireclay ..	Stourbridge ..	2/3	Ditto, per cwt.
			1″ 1½″	
	Flooring ..	Deal, P.E. ..	26/0 33/0	Per square delivered
	Ditto ..	Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	Tubes, Standard list ..	— 50%	Delivered
	Ditto ..	Fittings, ditto ..	— 50%	Ditto
	Ditto ..	Tubes, galvanised ..	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	Ditto 3 ditto ..	2/2½	
	Ditto ..	Ditto 5 ditto ..	2/11	
	Ditto ..	Ditto 7 ditto ..	3/4	
	Ditto ..	Ditto 10 ditto ..	3/7	
	Ditto ..	Ditto 25 ditto ..	3/9½	
	Ditto ..	Ditto 100 ditto ..	4/7	
	Ditto ..	Sheet, 15 oz. ..	3⅝*d.*	
	Ditto ..	Ditto 21 oz. ..	5½*d.*	
	Ditto ..	Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	Rough cast ¼″ ..	6¾*d.*	
	Ditto ..	Wired, cast ..	10½*d.*	
	Ditto ..	Figured, rolled ..	8*d.*	
	Ditto ..	Flemish or Arctic ..	8*d.*	
	Ditto ..	Lead lights in plain sheet squares	2/0	
	Gold leaf ..	English ..	2/9	Per book
	Gold size ..	Best ..	20/0	Per gallon
	Granite ..	Chippings ..	28/0	Delivered, per yard
	Ditto ..	Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire ..	Horse, cart and man ..	25/0	Per day
	Ditto ..	Lorry and driver ..	80/0	Ditto
	Ditto ..	Steam roller .. Water cart and men ..	100/0	Ditto
	Ditto ..	Sacks ..	3*d.*	Each
	Hot water ..	Tubes, Standard list	— 45%	Delivered
	Ditto ..	Fittings, ditto ..	— 45%	Ditto
	Ditto ..	Tubes, galvanised ..	— 31¼%	Ditto
J	Joists ..	Steel, rolled ..	260/0	Per ton delivered
	Ditto ..	Wood, soft, 9″ × 3″ ..	3/9	Per foot cube delivered
	Ditto ..	Ditto, ditto, 7″ × 2½″	3/2	
	Ditto ..	Ditto, ditto, 6″ × 2″ ..	3/0	
K	Knotting ..	..	35/0	Per gallon
L	Lathing ..	Metal ..	1/0	Per yard
	Ditto ..	Wood, sawn ..	3/9	Per bundle
	Lead ..	Sheet ..	35/0	Per cwt.
	Ditto ..	Pipe ..	35/6	Ditto
	Ditto ..	Soil ..	38/0	Ditto
	Ditto ..	White ..	58/9	Ditto
	Lime ..	Grey stone ..	51/3	Per ton
	Ditto ..	Blue lias ..	58/6	Ditto
M	Mahogany ..	Honduras ..	19/0	Ft. cube
	Ditto ..	Cuba ..	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching ..	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails ..	Brads, floor ..	22/9	Per cwt. delivered
	Ditto ..	Cut clasp ..	23/0	
	Ditto ..	Lath ..	31/0	
	Ditto ..	Wire, oval ..	26/0	
O	Oak ..	American ..	14/0	Per foot cube delivered
	Ditto ..	English ..	13/0	
	Ditto ..	European ..	21/0	
	Ditto ..	Japanese ..	20/0	
	Oil ..	Linseed, boiled ..	4/1	Per gall.
	Ditto ..	Ditto, raw ..	3/10	ditto
P	Paint ..	Mixed ..	80/0	Per cwt. d/d
			2″ 3″	
	Partitions ..	Breeze ..	2/0 2/7	Per yard sup. d/d
	Plaster ..	Paris, coarse ..	70/0	Per ton delivered
	Ditto ..	Sirapite ,, ..	70/0	
	Ditto ..	Slabs, ceiling ..	2/3	Per yard
	Putty ..	Glazing ..	18/0	Per cwt.
			5″ 6″	
R	Rain water ..	Gutters, O.G. ..	2/2 2/8	Per yard d/d
			3″ 4″	
	Ditto ..	Pipes, round ..	2/2 3/0	
	Roofing, iron ..	Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	Ordinary ..	13/0	Per yard cube d/d
	Ditto ..	Washed ..	14/0	
			No. 8 No. 10	
	Sash ..	Lines, flax ..	3/8 4/6	Per knot
	Ditto ..	Weights, iron ..	12/0	Per cwt.
	Ditto ..	Ditto, lead ..	40/0	Ditto
	Size ..	Best ..	5/6	Per fkn.
	Slates ..	20″ × 10″, Welsh ..	430/0	Per 1,000
	Ditto ..	14″ × 9″, ditto ..	175/0	Ditto
	Soil pipes ..	L.C.C., iron, 4″ ..	5/1	Per yard
	Solder ..	Plumbers' ..	1/0	Per lb.
	Steam ..	Tubes, Standard list ..	—40%	Delivered
	Ditto ..	Fittings, ditto ..	—40%	Ditto
	Ditto ..	Tubes, galvanised ..	—25%	Ditto
	Steel ..	Angles ..	14/6	Per cwt.
	Ditto ..	Bolts ..	36/0	Ditto
	Ditto ..	Joist ..	13/0	Ditto
	Ditto ..	Stanchions ..	17/0	Ditto
	Stone ..	Bath ..	3/9	Per foot cube d/d
	Ditto ..	Portland ..	5/3	
	Ditto ..	York ..	6/0	
T	Tar ..	Stockholm ..	1/0	Per gallon
	Teak ..	Eng. ..	12/0	Per foot cube d/d
	Ditto ..	Moulmein ..	19/0	
	Terebine ..	..	13/6	Per gallon
			2″ 4″	
	Thimbles ..	Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	Plain, roofing ..	120/0	Per 1,000
	Ditto ..	6″ × 6″, white glazed ..	12/6	Per yard
	Timber ..	Deal, joinery ..	5/9	Per foot cube d/d
	Ditto ..	Ditto, Carpenters'	3/6	
	Ditto ..	Slating battens ..	3/0	Per 100 feet
			1½″ 2″	
	Traps ..	Cast, lead, S. ..	3/0 4/3	Each
	Ditto ..	Ditto, P. ..	2/4 3/5	Ditto
	Turpentine ..		9/3	Per gallon
			½″ ¾″ 1″	
U	Unions ..	Plumbers' ..	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves ..	Ball ..	5/6 7/9 13/4	Each
	Varnish ..	Hard, oak ..	15/0	Per gallon
	Ditto ..	Copal ..	17/0	Ditto
	Ditto ..	Flat ..	16/0	Ditto
W	Whiting ..	Gilders' ..	3/0	Per cwt.
	Wire ..	Guards, galvd. ..	2/6	Per foot super
			2″ 4″	
	Ditto ..	Balloon, ditto, ditto ..	5*d.* 6*d.*	Each
	Ditto ..	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M. ..	Sheeting ..	40/0	Per cwt.
	Ditto ..	Ditto. perforated ..	4*d.*	Per foot super.

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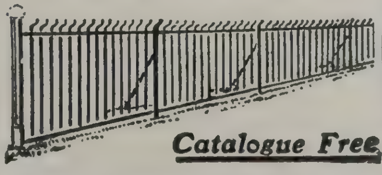

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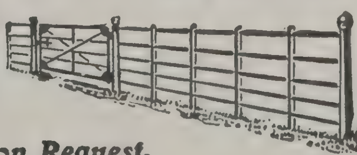

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FRIDAY, JUNE 1, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ABERDARE.—For erection of two semi-detached villas at Abernant, Aberdare. Deposit £3 3s. Mr. G. Kenshole, M.S.A., architect, 30, Charles Street, Cardiff.

BARGOED.—For erection of operating theatres, rest wards, laundry, &c., for the Executive Board of the Aberdare and District General Hospital. Deposit £5. The above Board are also prepared to receive schemes and tenders for extensions and alterations to their central heating system and supply of laundry machinery. Mr. O. P. Bevan, architect, Station Road, Bargoed.

BARNSLEY.—June 5.—For all trades in erection of 32 non-parlour type houses on Wilthorpe Avenue and four parlour type houses to face Huddersfield Road, for the Corporation. The Borough Engineer, Fairfield House, Barnsley.

BOWERHAM.—June 5.—Sole tenders are invited for alterations and additions to branch shop, Bowerham, for the Lancaster and District Co-operative Society, Ltd. Mr. R. W. Jackson, architect and surveyor, 43, Church Street, Lancaster.

BRADFORD.—June 5.—For forming building laboratories Technical College, for the Corporation. The City Architect, Town Hall, Bradford.

BRADFORD.—June 7.—For erection of the following houses, class A, in accordance with the conditions stated below, for the Corporation :—Housing scheme No. 4, Scholemoor, 9 houses ; housing scheme No. 5, Thackley (North Hall Farm site), 58 houses ; housing scheme No. 9, Bierley House estate, 34 houses. (1) Contractors may tender for separate trades or for the whole of the work in all trades complete ; (2) tenders shall be based upon fixed prices for labour and materials. The City Architect, Town Hall, Bradford.

BRADFORD.—June 7.—For the various trades required in erection of 66 tenement dwellings, Longlands district, for the Corporation. The City Architect, Town Hall, Bradford.

BURGH.—June 15.—For restoration of the south aisle of Orby Church, near Burgh, Lincs. Mr. W. Bond, architect, Grantham.

BURY.—For erection and completion of a temporary out-patients' department at the Bury Infirmary. Mr. C. R. Cooper, M.S.A., architect, 20, Market Street, Bury, Lancs.

EASINGTON.—For erection of houses (approximate number 30) at Easington, for the Banbury Town Council. Mr. G. E. Wrigley, borough surveyor, Banbury.

ERITH.—June 4.—For proposed hospital of 21 beds, for the Erith and District Hospital Committee. Send application and £2 2s. deposit by June 4 to Captain E. G. Beagley, hon. secretary, Bank Chambers, Pier Road, Erith.

FALMOUTH.—June 9.—For erection of a boys' school adjoining All Saints' Church. Deposit £1 1s. Mr. C. R. Corfield, A.R.I.B.A., architect, 23, Church Street, Falmouth.

FELLING-ON-TYNE.—June 8.—For erection of eight houses in stone and five houses in brickwork on the Windy Nook site, for the Urban District Council. Mr. C. W. Hall, architect, Council Buildings, Felling.

GLASGOW.—June 4.—Pavilions—For the following works required in connection with the proposed erection of football, tennis, and bowling pavilions at Parkhead Recreation Ground ; also cash office at Richmond Park, for the Glasgow Corporation, viz. : (1) Excavator, concrete and brick works ; (2) carpenter, joiner and glazier works ; (3) painter work ; (4) plumber work ; (5) slater work ; (6) plaster and cement concrete works ; (7) tiling and terazzo work. Specifications and forms of tender and all necessary information, may be obtained on application to Mr. J. Dalrymple, general manager, 46, Bath Street, Glasgow. Sealed tenders, marked outside "Tramways, Tender for —— Work," must be lodged with Mr. J. Lindsay, town clerk, City Chambers, Glasgow, by 10 a.m. on June 4.

GOSPORT.—June 9.—For additions to the administrative block at the Isolation Hospital, Elson, for the Town Council. Mr. E. J. Goodacre, A.M.I.C.E., borough engineer and surveyor, Town Hall, Gosport.

GRIFFITHSTOWN.—June 11.—For erection of 20 houses at Griffithstown, for the Panteg Urban District Council. Mr. H. R. Davies, surveyor, Pontymoel, near Pontypool.

HALSTEAD.—June 11.—For erection of headquarters for the 5th Battalion, Essex Regiment. Send application and £2 2s. deposit by June 11 to the Secretary, Essex Territorial Army Association, Market Road, Chelmsford.

HOPTON, YORKS.—June 6.—For all trades in erection of four semi-detached bungalows at Hopton, Mirfield. Messrs. C. H. Marriott, Son and Shaw, Church Street Chambers, Dewsbury.

LANCASTER.—June 9.—For erection of 22 cottages, Westfield, Lancaster, for the War Memorial Village, Lancaster. Contractors must tender for each block separately, but they may compete for any number of blocks up to the total required. Deposit £2 2s. Messrs. T. H. Mawson and Son, High Street House, Lancaster.

LEEDS.—June 6.—For the excavator, bricklayer, mason and concretors, carpenter and joiners, plumbers, plasterers, slaters, and painters' work required in the erection of extensions to the nurses' home at the Leeds Township Infirmary, Beckett Street, for the Guardians. Send names by June 6 to Messrs. G. F. Bowman and Son, architects, 5, Greek Street, Leeds.

LEEDS.—June 13.—The Commissioners of His Majesty's Works, &c., invite tenders for erection of a telephone exchange at Stanningley, Leeds. Deposit £1 1s. H.M. Office of Works, Stansfield Chambers, Great George Street, Leeds, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LISKEARD.—June 11.—For the adaptation and repair of the farmhouse and buildings at Looe Mills, for the Cornwall County Council. Deposit £1 1s. The County Land Agent, County Hall, Truro.

LONDON.—June 11.—For construction of a motor van shed at the disinfecting station, Factory Lane, Croydon, for the Town Council. The Borough Engineer's Office, Town Hall, Croydon.

LONDON.—June 15.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of a new Letter Sorting Office at Mount Pleasant, W.C. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, S.W.

LYTHAM ST. ANNES.—For erection of houses in connection with the housing scheme of the Council. The Surveyor's Office, Town Hall, St. Annes-on-the-Sea.

NANTYMOEL.—June 5.—For alterations and additions to the Working Men's Club and Institute. Send application and £3 3s. deposit by June 5 to Messrs. Thomas and Morgan and Partners, architects and civil engineers, Pontypridd.

NEWBURY.—June 12.—For the carrying out of alterations and repairs at the Corn Exchange, for the Corporation. The Borough Surveyor's Office, Municipal Buildings, Newbury.

PONTYGWAITH.—June 9.—For taking down and rebuilding (on a new site) Soar Welsh Congregational Chapel, Pontygwaith. Deposit £2 2s. Mr. D. Hughes, 77, Llewellyn Street, Pontygwaith, or Messrs. R. S. Griffiths and Partners, architects, Tonypandy.

RHYMNEY.—June 14.—For erection of 10 houses at Nant-y-melin, Rhymney, Mon., for the Rhymney Urban District Council. Mr. A. F. Webb, M.S.A., architect, Tredegar Chambers, Blackwood, Mon.

SWINDON.—June 16.—For erection of 30 houses in Linden Avenue, Hurst, for the Corporation. Mr. S. C. Baggott (borough engineer), 34, Regent Circus, Swindon.

WOMBWELL, YORKS.—June 7.—For the whole or any of the trades (except slating) required in erection of business premises, garage, and ballroom, High Street, for Mr. J. Charlesworth. Deposit £2 2s. Messrs. Goodworth and Fox, architects, 9, Priory Place, Doncaster.

WOOD GREEN.—June 6.—For the provision of additional lavatory accommodation in the pavilion and erection of a store shed on ground adjacent thereto, on the recreation ground, White Hart Lane, for the Urban District Council. Mr. C. H. Croxford, engineer, the Town Hall, Wood Green, N.22, before 12 noon on June 6.

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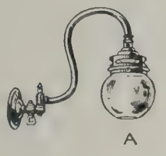

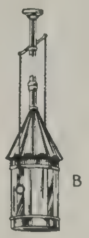

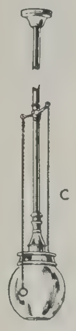

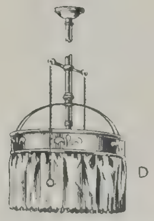

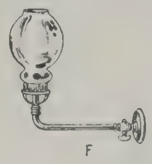

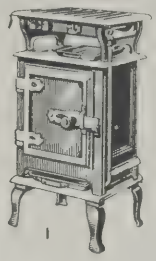

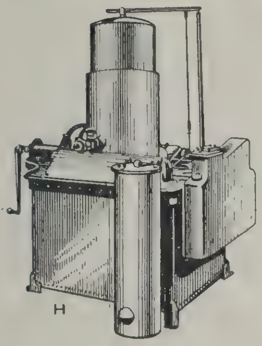

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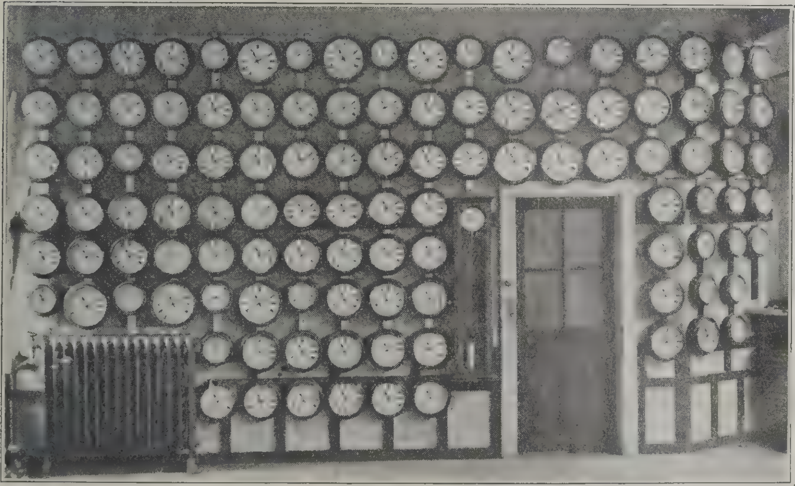

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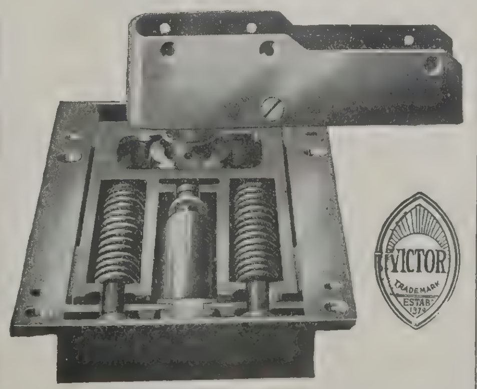

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3 9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅓th of the abov fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced	
	In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube		
	To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/0	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 " "		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	3/0
Add if in ground floors	2/0	2/10	3/0
Add if in beams or lintels	3/0	4/0	3/0

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced		
	Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
" " cement mortar	584/0	730/0	1065/0

	Per Foot Super.	
Damp course	Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

	Per Foot Super.	
Facings	Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.				
	1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube		
	Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Panel
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube		
	Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

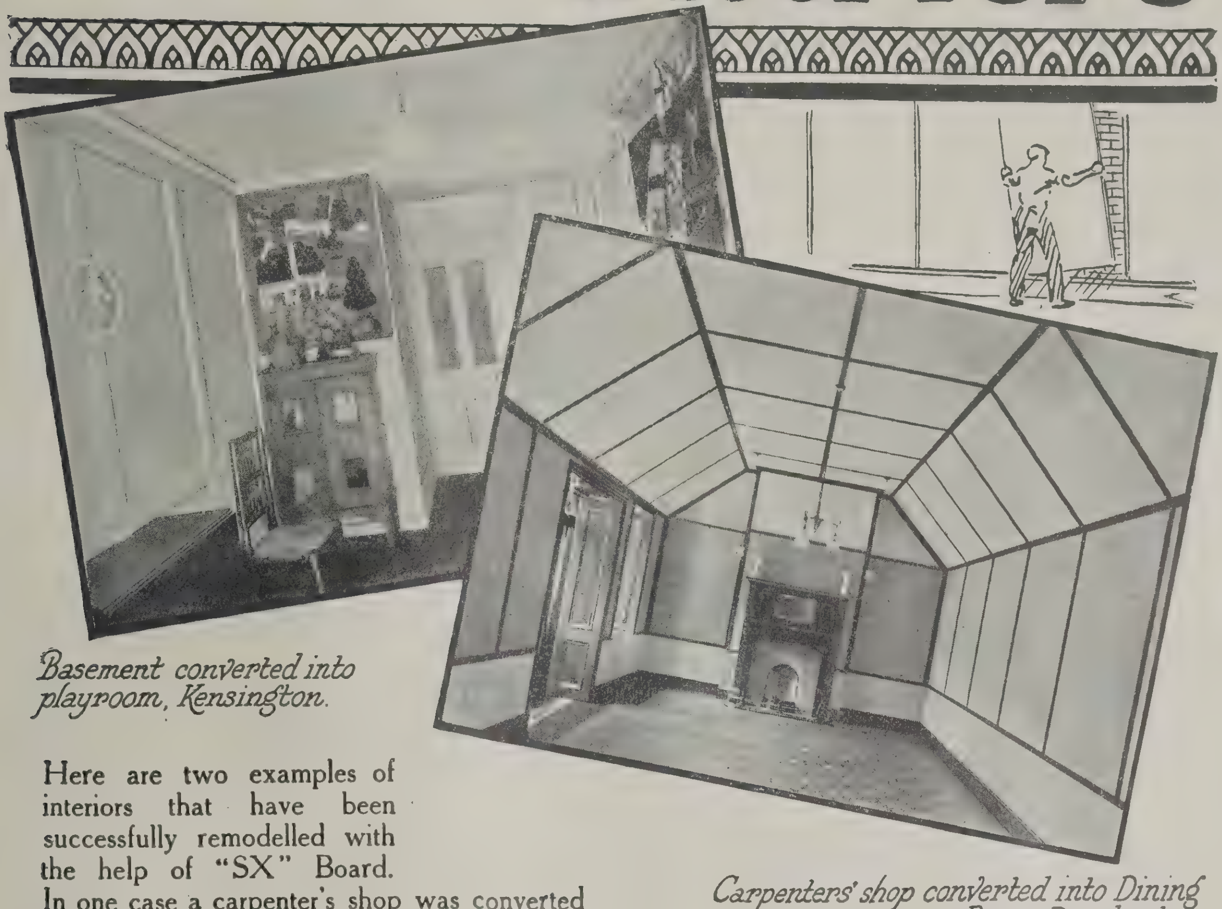
Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

	Sectional Area							
Fillets, rails and frames. Per foot run	1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

For Remodelling Interiors



Basement converted into playroom, Kensington.

Carpenters' shop converted into Dining Room, Dorchester.

Here are two examples of interiors that have been successfully remodelled with the help of "SX" Board. In one case a carpenter's shop was converted into a pleasant dining room, in the other a basement was turned to account as a children's play room. Wherever you have work of this kind remember "SX" Board. It will save you time and expense. Clean, simple and speedy in use, ready at once for decoration, it is admirably adapted for this class of work.

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The British Wall Board

THAMES MILLS · PURFLEET

WALLBOARD SX FOR INTERIOR LINING
BRITISH MADE
REG°

"By Test the Best"

S.B.136

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	45/3	51/6	54/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

Iron (L.C.C.) pipes		Per Foot Run 2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers ..	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt. Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run 2in.	3in.	4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

Give your clients *better* service——

The successful architect is he who strives to give his clients better service every day. For instance, he finds it enhances his reputation to specify the materials and products which he knows to be the best for their particular class of work. That is why architects and builders, when dealing with Iron and Steel Structures,

Specify

"BITUMASTIC" Regd.

The "World's Record" Anti-Corrosive

One application will defy corrosion for very many years. In some cases it has protected steel surfaces for 20 years without having to be renewed. Full particulars forwarded on request.

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EXPANDED METAL PERFECTION "C" LATHING

Standard Sheets, 9 ft. by 2 ft. and in Gauges—22—24—26.

The diamond mesh of "C" Lathing forms a perfect key for the plaster, and owing to its uniform flexibility is suitable for both flat and curved surfaces.

Samples and prices on application.

THE MIDLAND EXPANDED METAL Company, Ltd., Dudley Port, TIPTON

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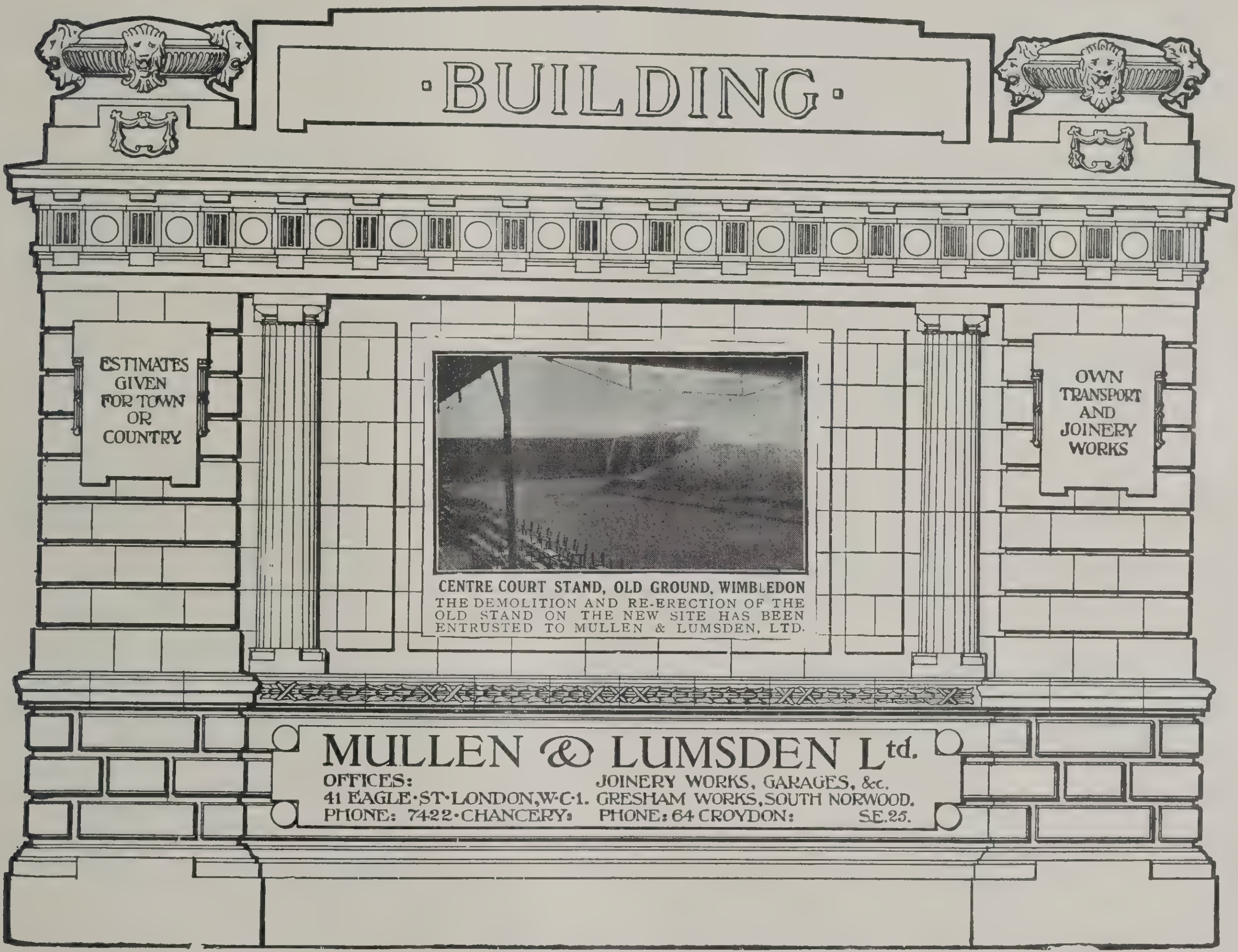
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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Rounded Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/3	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/2	0/6¼	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/7	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	1/11	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	⅛in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	Size *Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0½	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

SAND FACED REDS
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LONDON BRICK Cº., Lᵀᴰ.
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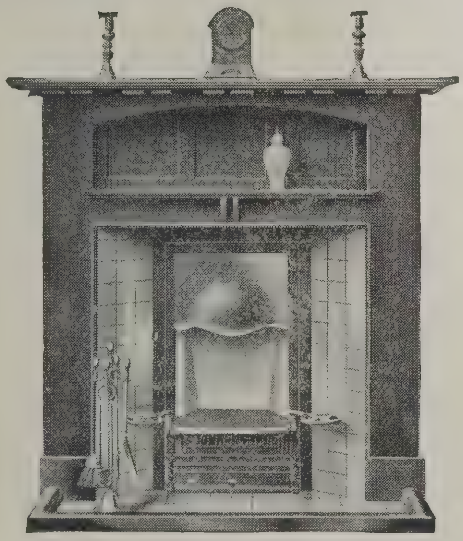
The ONE FIRE HEATS THE PARLOUR, HEATS THE WATER, AND HEATS THE OVEN

ALL EFFICIENTLY

ALL ASHES REMOVED FROM KITCHENETTE. NO DUST IS RAISED IN THE PARLOUR.



LIVING ROOM OR PARLOUR.

Showing interior, with Close Fire and Extended Hot-Plate, convertible into Open Fall-Bar Fire, with Bracket-Table on bottom bar. Removes necessity of doing any cooking whatever in the living room, and makes the room a real parlour.

The most suitable combination for the modern bungalow and housing schemes.

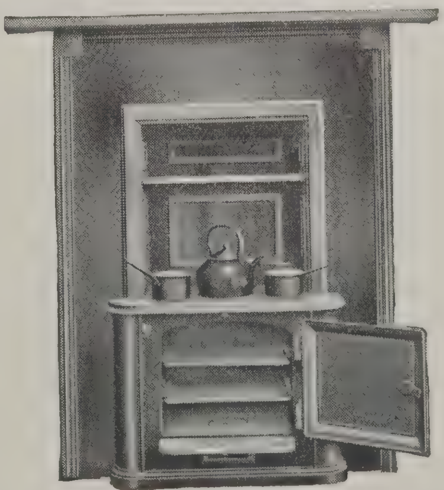
SOLE MAKERS:—

FORTH & CLYDE & SUNNYSIDE IRON CO., LTD.
FALKIRK.

Can be supplied through any Builder's Merchant

KITCHENETTE.

Showing Boiling Ring in Bottom of Oven.



Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½d.	9d.	8d.	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1d. to Mechanic's Rate
1916–July	1/0½	10d.	9d.		
1917–Apl. 28	1/1½	11d.	10d.		
1917–Oct. 20	1/3½	1/0½	11½d.		
1918–Jan. 11	1/3½+12½%	1/0½+12½%	11½+12½%		
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1d. to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May 26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3d. per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	Pipes, iron, 2″ ..	3/0	Per yard
	Asbestos ..	Sheeting	1/9	Ditto
	Ditto ..	Ditto, corrugated ..	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
B			2″ ¾″	
	Ballast ..	Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick ..	Broken	10/6	Per yard cube d/d
	Ditto ..	Hardcore	5/0	
	Bricks ..	Blue, wirecuts ..	145/6	
	Ditto ..	Ditto, pressed ..	185/6	Per 1,000 F.O.R. London
	Ditto ..	Firebricks	223/0	
	Ditto ..	Fixing, breeze ..	80/0	
	Ditto ..	Flettons	53/3	
	Ditto ..	Reds	110/0	
	Ditto ..	Rubbers	265/0	
	Ditto ..	Stocks	92/6	Delivered
	Ditto ..	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	Ditto headers ..	430/0	
	Ditto .	2nd quality	20/0	Per 1,000 less
	Breeze ..	Coke	10/6	Per yard cube d/d
	Ditto ..	Pan	5/6	
C	Cartage ..	Of Bricks, blue ..	12/6	Per 1,000 from rail to job.
	Ditto ..	Of ditto, Flettons ..	9/0	
	Ditto ..	Of ditto, glazed ..	15/0	
	Cement ..	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto ..	Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto ..	Ditto	+7½%	Delivered
			4″ 6″	
	Drains, iron ..	Pipes ..	5/6 8/7	Per yard delivered
	Driers ...	For paint	60/0	Per cwt.
E	Enamel ..	White, best	25/0	Ditto, per gallon
F	Felt ..	Roofing	9/7	Delivered, per square
	Fireclay ..	Stourbridge	2/3	Ditto, per cwt.
			1″ 1½″	
	Flooring ..	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto ..	Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	Tubes, Standard list ..	— 50%	Delivered
	Ditto ..	Fittings, ditto ..	— 50%	Ditto
	Ditto ..	Tubes, galvanised ..	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	Ditto 3 ditto ..	2/2½	
	Ditto ..	Ditto 5 ditto ..	2/11	
	Ditto ..	Ditto 7 ditto ..	3/4	
	Ditto ..	Ditto 10 ditto ..	3/7	
	Ditto ..	Ditto 25 ditto ..	3/9½	
	Ditto ..	Ditto 100 ditto ..	4/7	
	Ditto ..	Sheet, 15 oz. ..	3⅝d	
	Ditto ..	Ditto 21 oz. ..	5½d.	
	Ditto ..	Ditto 26 oz. ..	6⅞d.	
	Ditto ..	Rough cast ¼″ ..	6¾d.	
	Ditto ..	Wired, cast	10½d.	
	Ditto ..	Figured, rolled ..	8d.	
	Ditto ..	Flemish or Arctic ..	8d.	
	Ditto ..	Lead lights in plain sheet squares	2/0	
	Gold leaf ..	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings ..	28/0	Delivered, per yard
	Ditto ..	Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire ..	Horse, cart and man ..	25/0	Per day
	Ditto ..	Lorry and driver ..	80/0	Ditto
	Ditto ..	Steam roller .. .. Water cart and men ..	100/0	Ditto
	Ditto ..	Sacks	3d.	Each
	Hot water	Tubes, Standard list	— 45%	Delivered
	Ditto ..	Fittings, ditto ..	— 45%	Ditto
	Ditto ..	Tubes, galvanised ..	— 31¼%	Ditto
J	Joists ..	Steel, rolled	260/0	Per ton delivered
	Ditto ..	Wood, soft, 9″×3″ ..	3/9	Per foot cube delivered
	Ditto ..	Ditto, ditto, 7″×2½″	3/2	
	Ditto ..	Ditto, ditto, 6″×2″ ..	3/0	
K	Knotting ..	.. ..	35/0	Per gallon
L	Lathing ..	Metal	1/0	Per yard
	Ditto ..	Wood, sawn	3/9	Per bundle
	Lead ..	Sheet	35/0	Per cwt.
	Ditto ..	Pipe	35/6	Ditto
	Ditto ..	Soil	38/0	Ditto
	Ditto ..	White	58/9	Ditto
	Lime ..	Grey stone	51/3	Per ton
	Ditto ..	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto ..	Cuba	26/0	Ditto
			⅝″ ¾″ 1″	
	Matching ..	Deal, T. G. v ..	18/0 21/0 28/0	Per square delivered
N	Nails ..	Brads, floor	22/9	Per cwt. delivered
	Ditto ..	Cut clasp	23/0	
	Ditto ..	Lath	31/0	
	Ditto ..	Wire, oval	26/0	
O	Oak ..	American	14/0	Per foot cube delivered
	Ditto ..	English	13/0	
	Ditto ..	European	21/0	
	Ditto ..	Japanese	20/0	
	Oil ..	Linseed, boiled ..	4/1	Per gall.
	Ditto ..	Ditto, raw	3/10	ditto
P	Paint ..	Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster ..	Paris, coarse	70/0	Per ton delivered
	Ditto ..	Sirapite ,, ...	70/0	
	Ditto ..	Slabs, ceiling	2/3	Per yard
	Putty ..	Glazing	18/0	Per cwt.
R			5″ 6″	
	Rain water	Gutters, O.G. ..	2/2 2/8	Per yard d/d
			3″ 4″	
	Ditto ..	Pipes, round	2/2 3/0	
	Roofing, iron	Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	Ordinary	13/0	Per yard cube d/d
	Ditto ..	Washed	14/0	
			No. 8 No. 10	
	Sash ..	Lines, flax	3/8 4/6	Per knot
	Ditto ..	Weights, iron ..	12/0	Per cwt.
	Ditto ..	Ditto, lead	40/0	Ditto
	Size ..	Best	5/6	Per fkn.
	Slates ..	20″×10″, Welsh ..	430/0	Per 1,000
	Ditto ..	14″×9″, ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4″ ..	5/1	Per yard
	Solder ..	Plumbers'	1/0	Per lb.
	Steam ..	Tubes, Standard list ..	—40%	Delivered
	Ditto ..	Fittings, ditto ..	—40%	Ditto
	Ditto ..	Tubes, galvanised ..	—25%	Ditto
	Steel ..	Angles	14/6	Per cwt.
	Ditto ..	Bolts	36/0	Ditto
	Ditto ..	Joist	13/0	Ditto
	Ditto ..	Stanchions	17/0	Ditto
	Stone ..	Bath	3/9	Per foot cube d/d
	Ditto ..	Portland	5/3	
	Ditto ..	York	6/0	
T	Tar ..	Stockholm	1/0	Per gallon
	Teak ..	Eng.	12/0	Per foot cube d/d
	Ditto ..	Moulmein	19/0	
	Terebine ..	.. .. ..	13/6	Per gallon
			2″ 4″	
	Thimbles ..	Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	Plain, roofing ..	120/0	Per 1,000
	Ditto ..	6″×6″, white glazed ..	12/6	Per yard
	Timber ..	Deal, joinery	5/9	Per foot cube d/d
	Ditto ..	Ditto, Carpenters'	3/6	
	Ditto ..	Slating battens ..	3/0	Per 100 feet
			1½″ 2″	
	Traps ..	Cast, lead, S.	3/0 4/3	Each
	Ditto ..	Ditto, P.	2/4 3/5	Ditto
	Turpentine	..	9/3	Per gallon
U			½″ ¾″ 1″	
	Unions ..	Plumbers'	1/4 2/0 3/0	Each
V			½″ ¾″ 1″	
	Valves ..	Ball	5/6 7/9 13/4	Each
	Varnish ..	Hard, oak	15/0	Per gallon
	Ditto ..	Copal	17/0	Ditto
	Ditto ..	Flat	16/0	Ditto
W	Whiting ..	Gilders'	3/0	Per cwt.
	Wire ..	Guards, galvd. ..	2/6	Per foot super
			2″ 4″	
	Ditto ..	Balloon, ditto, ditto ..	5d. 6d.	Each
	Ditto ..	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting ..	40/0	Per cwt.
	Ditto ..	Ditto, perforated ..	4d.	Per foot super.

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FRIDAY, JUNE 8, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

*** *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than* 2 P.M. *on Wednesdays.*

CONTRACTS OPEN.

ABERDEEN.—June 20.—For the various works on erection of the war memorial, Cowdray Hall and Art Gallery extension, for the Town Council. Messrs. A. Marshall Mackenzie and Son, 173A Union Street, Aberdeen.

BIRMINGHAM.—For erection of houses of the parlour type at the Colehall Works, for the Birmingham Tame and Rea District Drainage Board. Mr. J. D. Watson, M.I.C.E., engineer, The Rookery, Erdington Park, Birmingham.

BLACKPOOL.—June 13.—For extensions to car shed and depot at Squire's Gate, for the Corporation. Mr. H. W. Laing, general manager, Squire's Gate, Blackpool.

BRIGHTON.—June 13.—For erection of four combined shops and dwelling-houses on the Moulscombe housing estate, Lewes Road, for the Town Council. Send names with a deposit of £1 to either member of the Panel of Architects :—Messrs. Clayton and Black, 10 Prince Albert Street, Messrs. T. Garrett and Son, 34 Ship Street, Mr. E. Wallis Long, 56 East Street, or Mr. W. H. Overton, 22 Ship Street, Brighton.

BRISTOL.—June 15.—For erection of houses, as follows, for the Housing Committee :—Fishponds housing site, 50 houses ; Knowle, 52 ; Luckwell Road, Bedminster, 36 ; Highbury Road, 22. The City Engineer, Housing Department, 51 Prince Street.

BUXTON.—For proposed alterations and extensions at the Buxton and District Cottage Hospital. Deposit £1 1s. Mr. C. Flint, architect and surveyor, Buxton.

CARDIFF.—June 19.—For erection of a limited number of houses at Ely, for the Cardiff City Council. Deposit £2 2s. The City Architect, City Hall, Cardiff.

CARLISLE.—June 13.—The Corporation invites sole tenders for alterations at the Creighton School, Denton Holme. Mr. H. C. Marks, M.I.C.E., surveyor, 18, Fisher Street, Carlisle.

CHADDERTON.—June 19.—For erection of eight non-parlour houses, in two blocks, off Whitegate Lane, Hollinwood, for the Urban District Council. Mr. A. W. Cox, surveyor, Town Hall, Chadderton.

DARTFORD.—June 20.—For erection of 28 houses (in blocks of 4) on the Lowfield Street Housing Estate, for the Urban District Council. Deposit £2 2s. Mr. J. J. Hurtley, clerk, Council Offices, Dartford.

DEWSBURY.—June 11th.—For the whole of the work required in additions to conveniences near the Covered Market, for the Town Council. The Borough Surveyor, Town Hall, Dewsbury.

GLASGOW.—June 18.—The Corporation invite tenders for the excavator, mason and brick works, patent floors and roofs, steel work, cast iron work, and rock asphalte work in connection with the new buildings to be erected by the Corporation in Stockwell Street. Deposit £3 3s. The Office of Public Works, City Chambers, 64 Cochrane Street, Glasgow.

GLOUCESTER.—June 21.—For erection of an extension to the nurses' home at the Royal Infirmary. Deposit £2 2s. Mr. A. W. Probyn, architect, 9 Berkeley Street, Gloucester.

GUILDFORD.—June 21.—For the erection of the following houses on their Guildford Park housing estate :—(*a*) 45 pairs of 3 bedroom, non-parlour houses ; (*b*) 10 pairs of 3 bedroom, parlour houses, for the Corporation. Deposit £2 2s. Contractors are invited to tender for the erection of either 10, 20 or 45 pairs of (*a*) above, or for (*b*) above, or for the whole number to be erected. The Borough Surveyor, Tuns Gate, Guildford.

HASLINGDEN.—June 19.—For the whole or any separate branch of work (including the supply and fixing of the iron and steel work) in connection with proposed laundry, for the Guardians. Deposit £2 2s. Mr. W. Hemingway, A.R.I.B.A., Union Offices, Higher Pike Law, Rawtenstall.

HEMEL HEMPSTEAD.—June 18.—For the construction of a nurses' home and alterations to the infirmary block and laundry at the Poor Law Institution, for the Guardians. Deposit £1 1s. Messrs. Paine and Hobday, F.R.I.B.A., architects, 45 Bedford Row, W.C.1, Mr. L. Smeathman, clerk, 1 The Broadway, Hemel Hempstead.

HORBURY.—June 11.—For any or the whole of the trades required in erection of a cinema theatre in Twitch Hill, Horbury, near Wakefield. Mr. P. A. Hinchliffe, F.R.I.B.A., 14 Regent Street, Barnsley.

KIVETON PARK.—June 20.—For the provision of a bathroom, lavatory, &c., to the head teacher's house at Wales Kiveton Park Council School, for the West Riding Education Committee. Send application by June 13 to the Education Department, County Hall, Wakefield.

LONDON.—June 12.—For certain alterations and additions to the residential block at their hospital, Cambridge Road, E.2, for the Bethnal Green Board of Guardians. Deposit £2 2s. Mr. C. F. Jones, clerk, 79a Bishop's Road, E.2.

LONDON.—June 14.—For alterations and repairs in the conversion of the probation block at their schools in Andover Row, Hornsey Road, N., into nurseries for children, for the Guardians of St. Mary, Islington. Deposit £2. Mr. E. J. Harrison, L.R.I.B.A., architect, 23 Berkeley Road, Crouch End, N.8.

MANSFIELD.—June 11.—For erection of 30 houses, type A, in five blocks of six houses ; 14 houses in pairs, semi-bungalow design No. 1 ; 18 houses in pairs, semi-bungalow design No. 2 ; and the drainage, fencing, asphalting and water supply in connection with these houses, for the Town Council. Mr. W. Thompson, A.M.I.C.E., borough engineer and surveyor, Market Street, Mansfield.

MANCHESTER.—June 14.—For erection of a children's shelter at the Plymouth Grove Recreation Ground, for the Corporation. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MARKHAM.—For erection of a Presbyterian Chapel at Markham Village, Mon., for the Forward Movement Church Extension Society. Deposit £2 2s. Mr. A. F. Webb, M.S.A., architect, Tredegar Chambers, Backwood, Mon.

MIDDLESBROUGH.—June 18.—The Housing Committee invites alternative tenders for the complete erection of a total of 90 or 180 additional houses at their Garden Colony Estate, Marton Grove, Grove Hill. The houses are to be built in pairs, blocks of four and blocks of six. Persons desirous of tendering may do so for multiples of blocks of two, four or six houses, or for the 90 or 180. Alternative designs (two in number) have been prepared. Mr. S. E. Burgess, M.I.C.E., borough engineer, architect and surveyor, Municipal Buildings, Middlesbrough.

MIDDLETON.—June 14.—The Town Council invite lump-sum tenders for erection of 10 houses, consisting of three pairs type A14 and two pairs type A13 at Boarshaw. Deposit £2 2s. The Borough Engineer and Surveyor, Town Hall, Middleton.

NEWTOWN.—June 20.—For erection of a church house at Newtown. Mr. G. T. Bassett, A.R.I.B.A., architect and surveyor, Aberystwyth.

NOTTINGHAM.—June 13.—For a further 118 houses on the Highbury Road estate, for the Housing Committee. The houses are divided into groups varying from 16 to 46. The City Engineer, Guildhall, Nottingham.

PADSTOW, CORNWALL.—June 16.—For restoration work to the tower of Padstow Church. Deposit £1 1s. Mr. C. R. Corfield, A.R.I.B.A., architect, 23, Church Street, Falmouth.

PORTSCATHO.—June 23.—For alterations to farm buildings on Mr. Tregunna's Farm, St. Anthony village, Portscatho.

SCOTFORTH.—June 12.—For erection of 20 houses on the Scotforth housing site, Lancaster. Deposit £1 1s. Mr. F. Hill, borough engineer, Town Hall, Lancaster.

STOCKTON-ON-TEES.—June 11.—For erection of a sub-station in Maritime Street, for the Electricity Department. The Borough Engineer, Victoria Buildings, Stockton-on-Tees.

STOKE-ON-TRENT.—June 13.—For erection of three pairs of cottages at the Penkhull Children's Homes, for the Guardians of Stoke and Wolstanton Union. Deposit £2 2s. Mr. A. R. Piercy, architect, Union Offices, Stoke-on-Trent.

SWINTON.—June 11.—For the whole or any part of the work required in erection of a sports Pavilion, for the Swinton Miners' Welfare Committee. Send application by June 11 to Mr. J. E. Whitehead, architect, 34 Goddard Hall Road, Sheffield.

WITHAM.—June 16.—For erection of six semi-detached houses on the Cocks Farm site, for the Witham Urban District Council. Mr. W. P. Perkins, surveyor to the Council, Collingwood Road, Witham.

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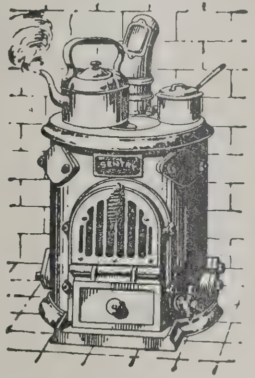

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PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s.* per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅛th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/0	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0	„	„

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	3/0
Add if in ground floors	2/0	2/10	3/0
Add if in beams or lintels	3/0	4/0	3/0

	Earthenware 4 in.	6 in.	Iron 4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	4/0	6/0	11/6	20/0
Ditto, for junctions, each	4/6	6/6	19/0	30/0
Gullies, including concrete surround and iron grating, each	20/0	26/0	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
„ „ cement mortar	584/0	730/0	1065/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	¼*d.*	¼*d.* plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	¼*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	15/0	17/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	4 Panel	2in. 4 Panel	6 Pane
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

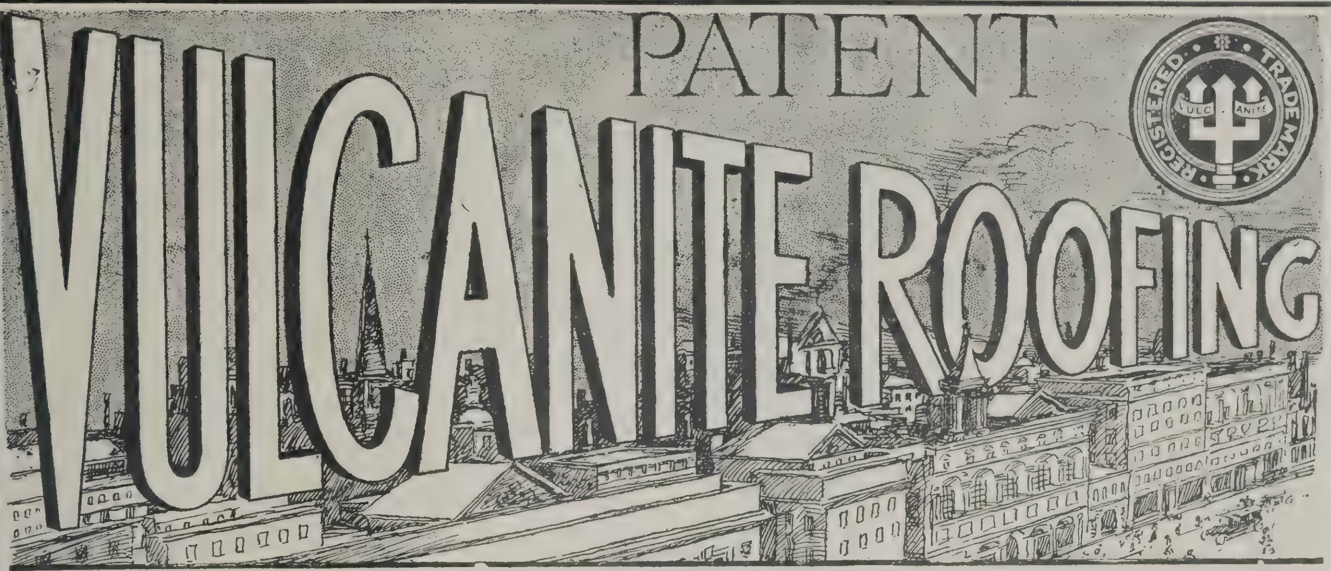
Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.



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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing

Barrel Bolts	Flush Bolts	Sash Fasteners	Locks and Furniture: Rim	Locks and Furniture: Mortice	Locks and Furniture: Cupboard	Casement: Stays	Casement: Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	45/3	51/6	54/6

Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
Per Foot Run			Each		
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
Iron (L.C.C.) pipes		2in.	4in.
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square: Countess	Per Square: Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	62/6
Asbestos corrugated roofing with galv. screws and limpet washers	75/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	77/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.: Up to 1st Floor	Per Cwt.: Above 1st Floor
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/3	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/2	0/6¼	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/7	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	1/11	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass $\frac{3}{16}$in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6¼	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

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On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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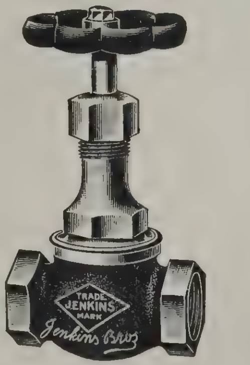

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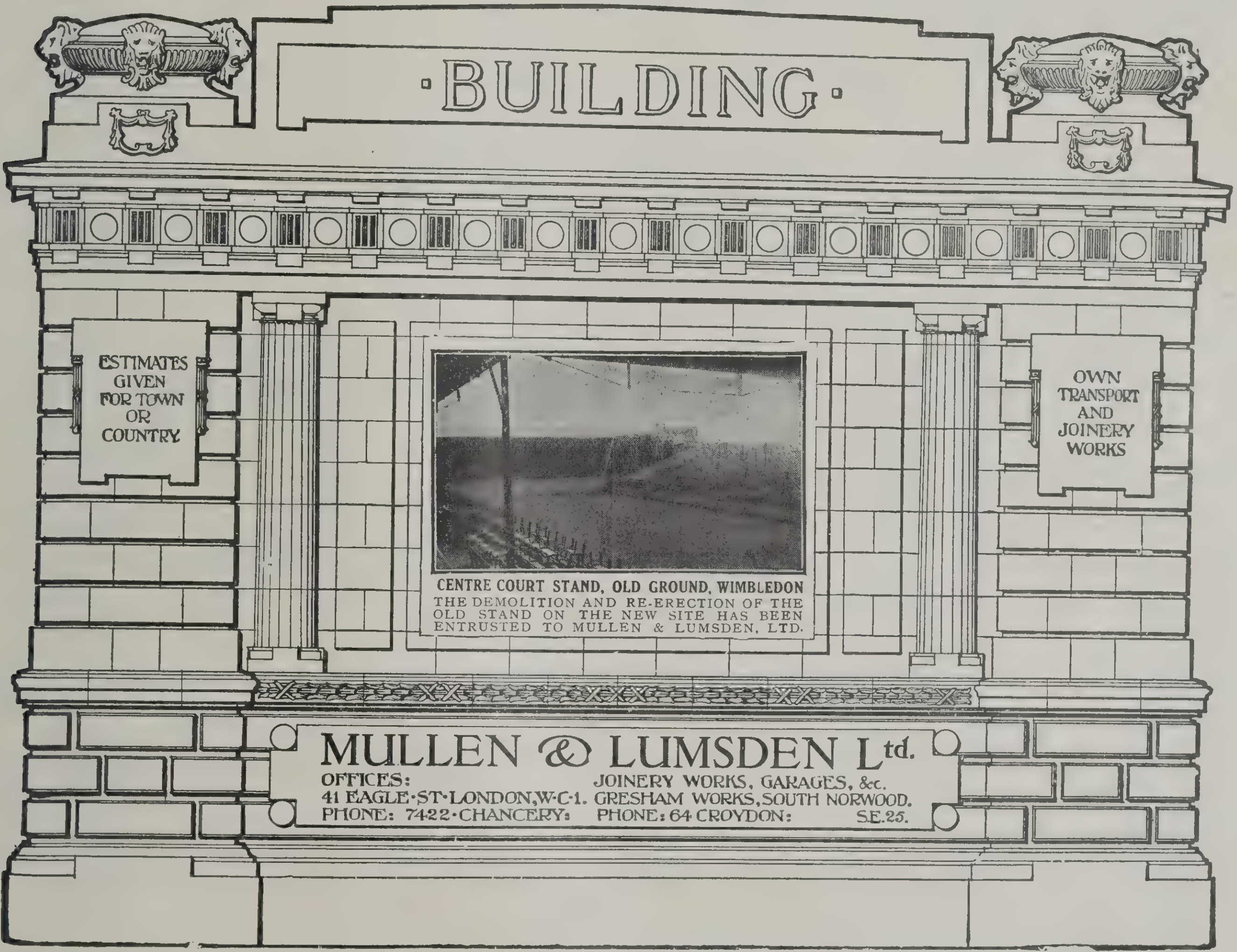

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan.11	1/3½+12½%	1/0¾+12½%	11¾+12½%		
1918–July27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb.15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov.15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May29	2/4	2/3	2/1		
1921–May16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	3/0	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	53/3	
	Ditto	Reds	110/0	
	Ditto	Rubbers	265/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/6 8/7	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅝*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ⅛"	6¼*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 45%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 31¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/0	Per cwt.
	Ditto	Pipe	35/6	Ditto
	Ditto	Soil	38/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. &	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/1	Per gall.
	Ditto	Ditto, raw	3/10	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/2 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/2 3/0	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4"	5/1	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—40%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—25%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	3/9	Per foot cube d/d
	Ditto	Portland	5/3	
	Ditto	York	6/0	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/3	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
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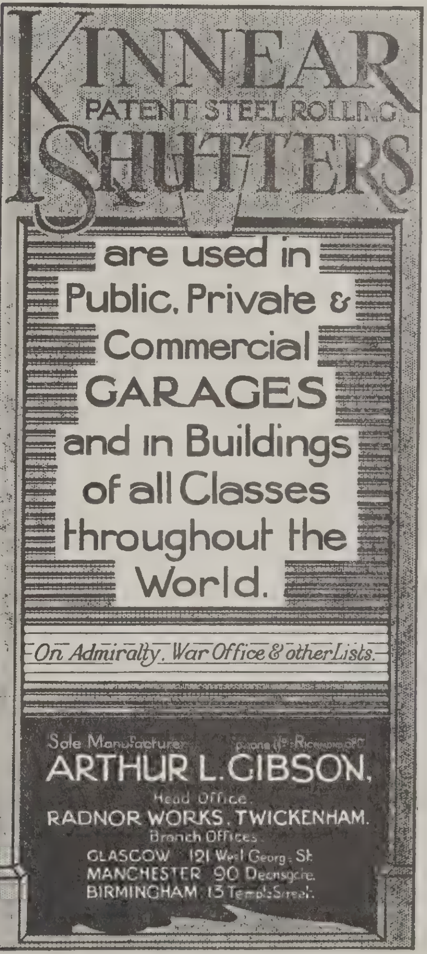
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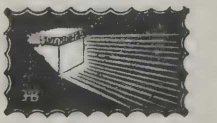

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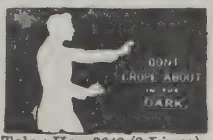
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FRIDAY, JUNE 15, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

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TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2* P.M. *on Wednesdays.*

CONTRACTS OPEN.

BARNSLEY.—For the whole of the works required in the erection of a central school in Longcar Lane, for the Education Committee. Deposit £2. Messrs. Dyson, Cawthorne and Coles, architects, 10 Regent Street, Barnsley.

BIRMINGHAM.—June 18.—For erection of 70 parlour-type houses on York and Cateswell Roads, Hall Green, under Contract 125, for the Public Works and Town Planning Committee. Deposit £1. Mr. H. H. Humphries, M.I.C.E., executive officer for housing schemes, Council House, Birmingham.

CARDIFF.—June 18.—For the following works, subject to their usual general conditions, for the Glamorgan Education Committee :—(1) New Boys' School, manual instruction block, and caretaker's house at Clydach-on-Tawe ; (2) new play sheds and retaining walls and levelling of playgrounds at Rhiwfawr Council School, Rhiwfawr, Swansea Valley ; (3) fencing Caerphilly Secondary School site, about 533 lineal yards. Mr. T. M. Franklin, secretary of Education Committee, Glamorgan County Hall, Cardiff.

CASTLETON.—For erection of a new church. Send application by June 16 to Mr. F. J. Flintoft, Stoneleigh, Castleton, York.

COVENTRY.—June 20.—For carrying out structural alterations to the mental wards at the London Road Institution. For the Guardians. Mr. T. F. Tickner, F.R.I.B.A., 14 Little Park Street, Coventry.

DEVONPORT.—July 9.—For the following works for the Plymouth Education Committee :—(1) Alterations and additions to King Street Council Schools, Devonport ; (2) new sanitary conveniences, etc., for the Devonport High School for Boys. Mr. Chas. Cheverton, architect, Chapel Street, Devonport.

DINGWALL.—June 25.—For the following works in connection with erection of two blocks of four-roomed houses at Millcraig Road, viz. :—Mason, carpenter and joiner, slater, plasterer, plumber, painter and glazier and electric light. Messrs. Mackenzie and Macdonald, architects, Dingwall.

DINGWALL.—June 25.—For the following works in connection with the erection of four blocks of three-roomed houses at Millcraig Road, viz. :—Mason, carpenter and joiner, slater, plasterer, plumber, painter and glazier and electric light. Mr. D. Matheson, architect, Dingwall.

EDMONTON.—June 18.—For carrying out repairs to Clavering's Farmhouse, Edmonton, for the Urban District Council. Mr. C. Brown, M.I.C.E., engineer, Town Hall, Edmonton.

FERNDALE.—June 18.—For building 22 houses and alternatively 30 houses on the same site, near their Ferndale Cemetery, Maerdy Road, Ferndale, for the Rhondda Urban District Council. Deposit £5. Mr. E. Taylor, engineer and surveyor, Council Offices, Pentre.

GLASGOW.—June 25.—For the following works required in connection with the proposed erection of a public hall at Granville Street and Clarendon Street, for the Corporation, viz. :—(1) Mason work ; (2) steel work ; (3) joiner work ; (4) glazier work ; (5) slater work ; (6) plumber work ; (7) plaster work ; (8) tile work ; and (9) painter work. Deposit £2 2s. Office of Public Works, 64 Cochrane Street, Glasgow.

GLASGOW.—June 25.—For the carpenter and joiner works, plumber work, and plaster work in connection with new buildings to be erected in Stockwell Street, for the Corporation. The Office of Public Works, City Chambers, 64 Cochrane Street, Glasgow.

GREENWICH.—June 25.—For the completion of 31 houses which are nearly finished on the Pound Park section of the housing estate at Charlton, for the Greenwich Borough Council. Mr. A. Roberts, F.R.I.B.A., 92 London Street, Greenwich.

GRIMSBY.—June 25.—For erection and completion of the 1923 extensions to the existing electricity works in accordance with drawings Nos. 1771 and 1772, specification No. 173 and general conditions dated December, 1905, for the Electricity Department. Deposit £2 2s. Mr. W. A. Vignoles, borough electrical engineer, Electricity Works, Moss Road, Grimsby.

HEANOR.—June 25.—For the enlargement of the Empire Theatre, Heanor. Deposit £5. Mr. J. Tomlinson, architect, South Normanton.

HUNSLET.—June 18.—For erection of a school at Joseph Street, Hunslet. Messrs. E. Simpson & Sons, architects, 12 Cunliffe Terrace, Manningham, Bradford.

KETTERING.—June 18.—For the demolition of property in George Street, adjoining the public conveniences, and for the construction of a caretaker's cottage on the site, for the Urban District Council. Mr. T. R. Smith, surveyor, Market Place, Kettering.

LANCASTER.—June 20.—For all trades in erecting a garage, etc., in Chapel Street, for Messrs. T. Ireland & Sons. Mr. R. W. Jackson, architect and surveyor, 43 Church Street, Lancaster.

LEEDS.—June 27.—For erection of a pavilion for mental defectives at Meanwood Park Colony, for the Corporation. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds.

LONDON.—June 19.—For erection of partitions, reflooring and redecoration of the wards, etc., at their Lambeth Hospital at Kennington, for the Lambeth Board of Guardians. Deposit £2. Mr. J. L. Goldspink, clerk, Boardroom and Offices, Brook Street, Kennington.

NEW QUAY.—June 27.—For erection of war memorial hall and institute. Mr. J. T. Jones, Berwyn, New Quay, Cardiganshire.

PLYMOUTH.—July 9.—For (1) alterations and additions to King Street Council Schools, Devonport ; (2) new sanitary conveniences, etc., for the Devonport High School for Boys, for the Education Authority. Mr. C. Cheverton, architect, Chapel Street, Devonport.

ROCHESTER.—June 25.—For extensions and alterations for the builder's work in connection with the central heating installation, etc., at the hospital, New Road, Rochester, for the Trustees of St. Bartholomew's Hospital. Contract No. 1—Boiler chimney-shaft ; Contract No. 2—Boiler seatings ; and Contract No. 3—Boiler-house and pump-house and other building works. The Surveyor, New Road, Rochester.

SHEFFIELD.—June 18.—For erection of conveniences in various public parks and recreation grounds within the city, for the Parks, etc., Committee. Deposit £3. The Improvement Surveyor, Town Hall, Sheffield.

SOUTHAMPTON.—June 27.—For construction of the foundations (contract No. 1) of proposed offices, Town Quay, for the Southampton Harbour Board. Deposit £1. The Engineer, Harbour Offices, Town Quay, Southampton.

SPROATLEY.—June 25.—For minor alterations and additions to the police station, Sproatley, for the Standing Joint Committee of the East Riding of the County of York. The County Architect, Beverley.

SWANSEA.—June 25.—For erection at Alexandra Road, Gorseinon, of 40 houses in blocks of two, comprising 10 blocks of "A" type and 10 blocks of "B" type houses, for the Swansea Rural District Council. Contractors may submit tenders for the whole of the houses or for not less than five blocks. Deposit £2 2s. Mr. J. T. J. Williams, M.S.A. (the Council's housing architect), 3 Temple Buildings, Goat Street, Swansea.

THORNHILL.—June 22.—For the builder, joiner, plumber, plasterer and slater works in connection with the Kelloholm Housing Scheme (28 houses), for the Thornhill District Committee. Deposit £1 1s. each schedule. Mr. W. Scott, architect, Inglewood, Sanquhar.

TUNBRIDGE WELLS.—June 23.—For the builder's work in extensions of buildings and machinery at the Electricity Works, Stanley Road, for the Town Council. Also for supply and erection of foundations, tiling and steel galleries. Mr. R. N. Torpy, borough electrical engineer, Stanley Road, Tunbridge Wells.

USHAW MOOR, DURHAM.—June 23.—For erection of 40 "A" type houses at Ushaw Moor, for the Durham Rural District Council. Deposit £3. Mr. G. Gregson, surveyor, 38 Saddler Street, Durham.

WISBECH.—June 18.—For erection of two shops and showrooms, in Norwich Street, Wisbech, for Mr. R. Height. Mr. T. M. Kerridge, architect, 126 Norwich Road, Wisbech.

YORK.—June 25.—For erection of fifty houses (in separate blocks) at their Heworth Housing Estate, for the Corporation. Deposit £2 2s. Mr. F. W. Sparr, city engineer, Guildhall, Yorks.

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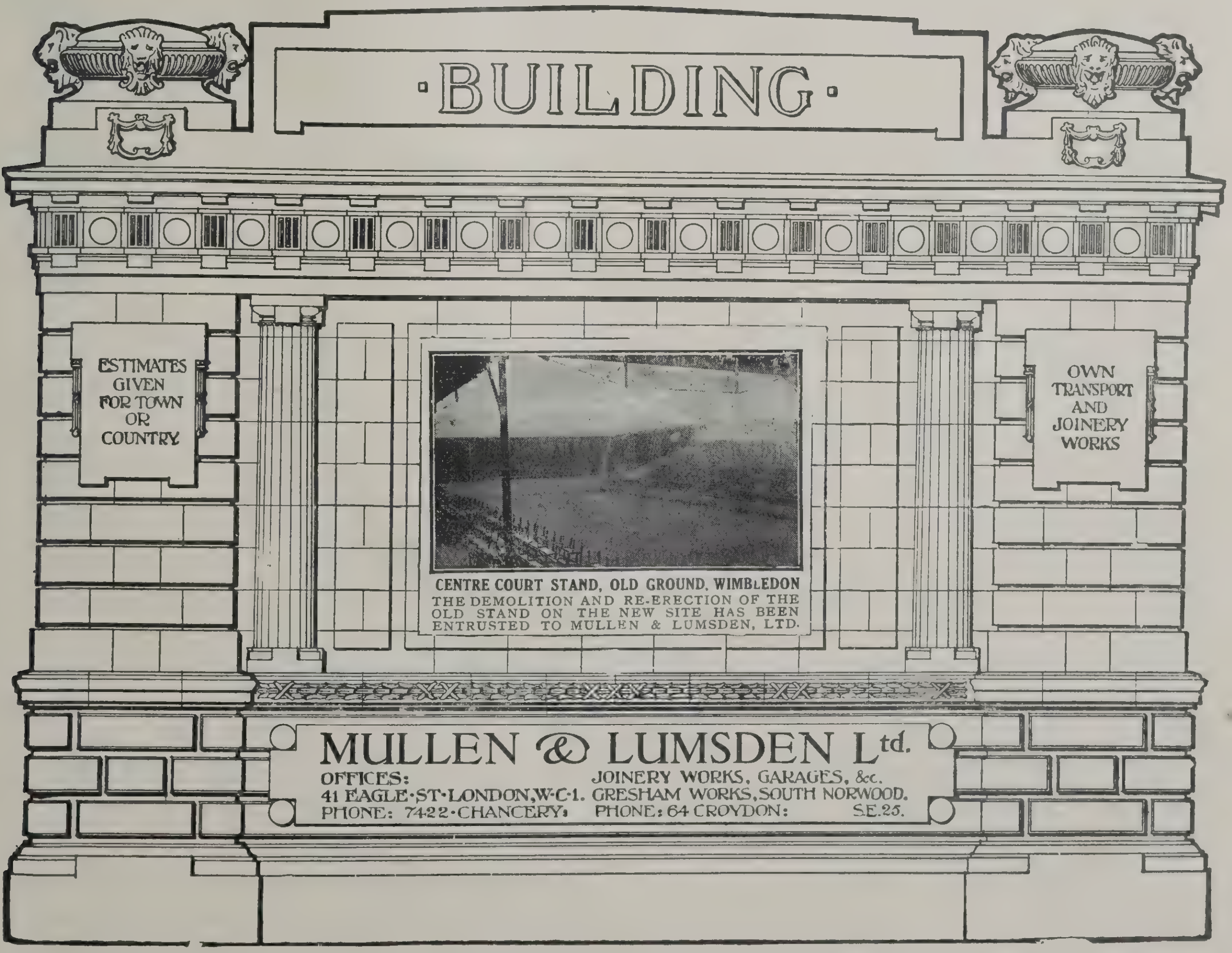
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Proper gantry complete	40/0
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	Per Foot Cube
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Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*
Clean and stack old bricks	20/0 per thousand	
Hack off old plaster	1/0 per sq. yd.	

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	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	3/0
Add if in ground floors	2/0	2/10	3/0
Add if in beams or lintels	3/0	4/0	3/0

	Earthenware 4 in.	6 in.	Iron 4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	2/6	3/6	11/6	20/0
Ditto, for junctions, each	3/0	4/3	19/0	35/0
Gullies, including concrete surround and iron grating, each	15/0	17/6	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
„ „ cement mortar	584/0	730/0	1065/0

Damp course	Per Foot Super. Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	10*d.*	1/3

Facings	Per Foot Super. Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10 %

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d.*
Flat joint in cement (struck) and lime whiting	1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super. 1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	12/0	16/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		
Gutter boards and bearers per foot super.			1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

Doors, per foot super.	1½in. 2 Panel	4 Panel	2in. 4 Panel	6 Pane
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3½*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1½ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

Fillets, rails and frames. Per foot run	Sectional Area 1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

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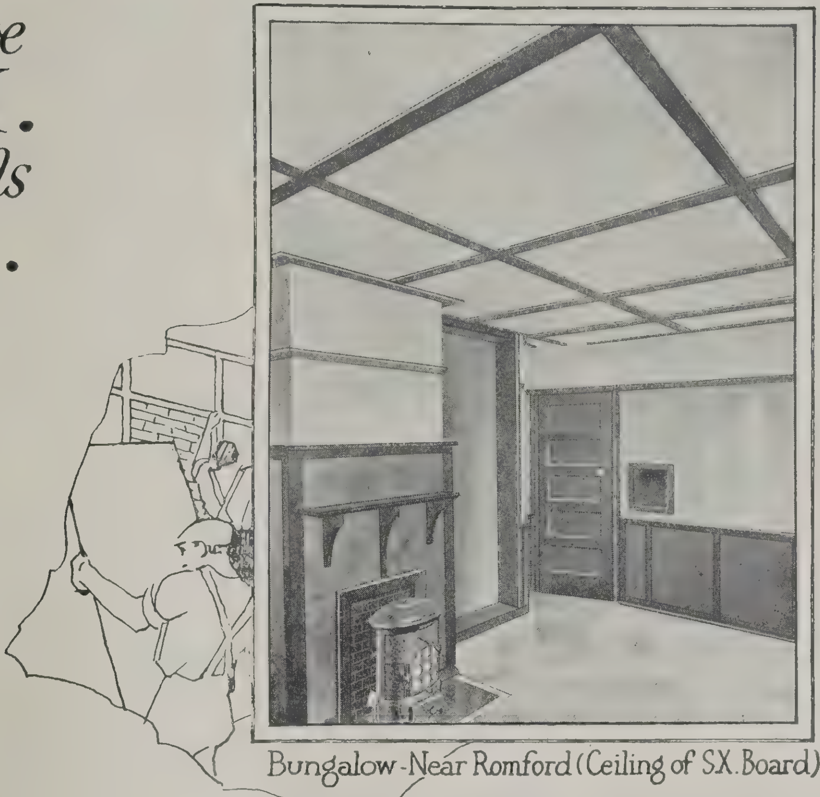

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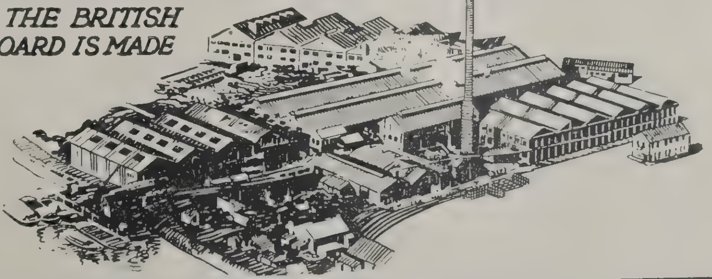

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SB 132

CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Per cwt.		
	Soakers	Flats	Flashings and Gutters
Milled lead and laying	45/3	51/6	54/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6

	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/6	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		Per Foot Run	
		2in.	4in.
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Per Square	
	Countess	Ladies
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ¼in. additional lap	2/0	2/6
Add for copper nails	1/0	1/3

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	60/0
Asbestos corrugated roofing with galv. screws and limpet washers ..	72/6
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	70/0
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Per Cwt.		
	Up to 1st Floor	Above 1st Floor	
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	Per Foot Run		
	2in.	3in.	4in.
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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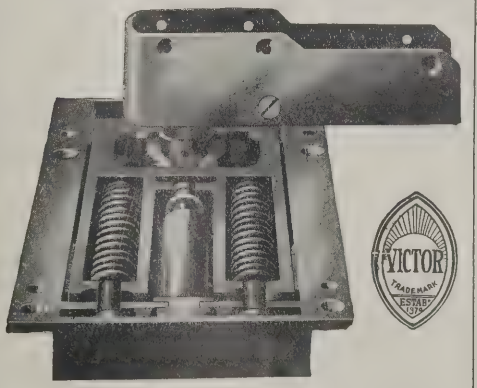

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Rounded			Flush or Staff
			Arris	Angle	Quirk	Bead
Render, float and set in lime and hair ..	2/3	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/2	0/6¼	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/7	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	1/11	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass		Figured Rolled	⅛in. Rolled	Cast Glass		¼in. Wired Cast Glass	Metal bar Patent Glazing
21oz.	15oz.			3/16in.	¼in.		
0/8¼	0/6¼	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
		If in Party Colours on			
If on Moulded Work	If on Enriched Work	Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats				Size		Per Yard Super			
		1	2	3	4	*Once*	*Twice*	Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0
Add for:—											
Moulded work ..	Add 20 per cent. to the above prices.										
Carved work ..	Add 150 per cent. to the above prices.										
Party colours ..	Add 2*d*. per yard super.										
Stippling ..	Add 2*d*. per yard super.										
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
	Per Foot Run										
If in narrow bands or on pipes	0/0½	0/0¾	0/1¼	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d*.	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

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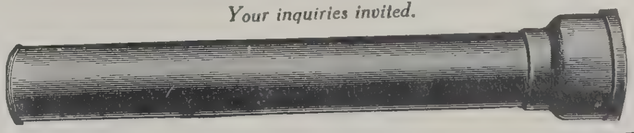

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½ + 12½%	1/0¾ + 12½%	11¾ + 12½%	Plumber *previous* to 26 May 1923 *only*	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 + 12½%	1/2½ + 12½%	1/1½ + 12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1d. to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May 26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	.. Pipes, iron, 2″ ..	3/0	Per yard
	Asbestos ..	.. Sheeting	1/9	Ditto
	Ditto ..	.. Ditto, corrugated ..	3/6	Ditto
	Aluminium	.. Paint	25/0	Per gallon
			2″ ¾″	
B	Ballast ..	.. Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	.. Pit	10/0 13/6	
			½″ ¾″ 1″	
	Ball valves	.. Brass	5/6 7/9 13/4 each	
	Brick ..	.. Broken	10/6	Per yard cube d/d
	Ditto ..	.. Hardcore ..	5/0	
	Bricks ..	.. Blue, wirecuts	145/6	
	Ditto ..	.. Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto ..	.. Firebricks ..	223/0	
	Ditto ..	.. Fixing, breeze	80/0	
	Ditto ..	.. Flettons ..	53/3	
	Ditto ..	.. Reds	110/0	
	Ditto ..	.. Rubbers ..	244/0	
	Ditto ..	.. Stocks	92/6	Delivered
	Ditto ..	.. White	100/0	F.O.R. London
	Ditto	.. White glazed Stretchers ..	440/0	Per 1,000 F.O.R. London
	Ditto ..	.. Ditto headers	430/0	
	Ditto ..	.. 2nd quality ..	20/0	Per 1,000 less
	Breeze ..	.. Coke	10/6	Per yard cube d/d
	Ditto ..	.. Pan	5/6	
C	Cartage ..	.. Of Bricks, blue	12/6	Per 1,000 from rail to job.
	Ditto ..	.. Of ditto, Flettons	9/0	
	Ditto ..	.. Of ditto, glazed	15/0	
	Cement ..	.. Keenes	105/0	Per ton delivered
	Ditto	.. Portland ..	58/0	
	Ditto	.. White, ditto ..	312/0	
	Copper	.. Nails	1/4	Per lb.
	Ditto	.. Sheeting ..	1/0	Ditto
			½″ ¾″ 1″	
	Cocks	.. Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto ..	.. Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list ..	−22½%	F.O.R. London
	Ditto ..	.. Ditto ..	+7½%	Delivered
			4″ 6″	
	Drains, iron	.. Pipes ..	5/6 8/7	Per yard delivered
	Driers ..	.. For paint ..	60/0	Per cwt.
E	Enamel ..	.. White, best ..	25/0	Ditto, per gallon
F	Felt ..	.. Roofing ..	9/7	Delivered, per square
	Fireclay ..	.. Stourbridge ..	2/3	Ditto, per cwt.
			1″ 1¼″	
	Flooring ..	.. Deal, P.E. ..	26/0 33/0	Per square delivered
	Ditto ..	.. Ditto, G. & T.	27/0 34/0	
G	Gas ..	.. Tubes, Standard list ..	— 50%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 50%	Ditto
	Ditto ..	.. Tubes, galvanised ..	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	.. Ditto 3 ditto ..	2/2½	
	Ditto ..	.. Ditto 5 ditto ..	2/11	
	Ditto ..	.. Ditto 7 ditto ..	3/4	
	Ditto ..	.. Ditto 10 ditto ..	3/7	
	Ditto ..	.. Ditto 25 ditto ..	3/9½	
	Ditto ..	.. Ditto 100 ditto ..	4/7	
	Ditto ..	.. Sheet, 15 oz. ..	3⅝*d.*	
	Ditto ..	.. Ditto 21 oz. ..	5½*d.*	
	Ditto ..	.. Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	.. Rough cast ¼″ ..	6¾*d.*	
	Ditto ..	.. Wired, cast ..	10½*d.*	
	Ditto ..	.. Figured, rolled ..	8*d.*	
	Ditto ..	.. Flemish or Arctic ..	8*d.*	
	Ditto ..	.. Lead lights in plain sheet squares	2/0	
	Gold leaf ..	.. English ..	2/9	Per book
	Gold size	.. Best	20/0	Per gallon
	Granite ..	.. Chippings ..	28/0	Delivered, per yard
	Ditto ..	.. Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire ..	.. Horse, cart and man ..	25/0	Per day
	Ditto ..	.. Lorry and driver ..	80/0	Ditto
	Ditto ..	.. Steam roller .. Water cart and men ..	100/0	Ditto
	Ditto ..	.. Sacks	3*d.*	Each
	Hot water	.. Tubes, Standard list	— 45%	Delivered
	Ditto ..	.. Fittings, ditto ..	— 45%	Ditto
	Ditto ..	.. Tubes, galvanised ..	— 31½%	Ditto
J	Joists ..	.. Steel, rolled	260/0	Per ton delivered
	Ditto ..	.. Wood, soft, 9″ × 3″ ..	3/9	Per foot cube delivered
	Ditto ..	.. Ditto, ditto, 7″ × 2½″	3/2	
	Ditto ..	.. Ditto, ditto, 6″ × 2″ ..	3/0	
K	Knotting ..	.. ..	35/0	Per gallon
L	Lathing ..	.. Metal	1/0	Per yard
	Ditto ..	.. Wood, sawn	3/9	Per bundle
	Lead ..	.. Sheet	35/0	Per cwt.
	Ditto ..	.. Pipe	35/6	Ditto
	Ditto ..	.. Soil	38/0	Ditto
	Ditto ..	.. White	58/9	Ditto
	Lime ..	Grey stone	51/3	Per ton
	Ditto ..	.. Blue lias	58/6	Ditto
M	Mahogany	.. Honduras	19/0	Ft. cube
	Ditto ..	.. Cuba	26/0	Ditto
			½″ ¾″ 1″	
	Matching ..	.. Deal, T. G. & B	18/0 21/0 28/0	Per square delivered
N	Nails ..	.. Brads, floor	22/9	Per cwt. delivered
	Ditto ..	.. Cut clasp	23/0	
	Ditto ..	.. Lath	31/0	
	Ditto ..	.. Wire, oval	26/0	
O	Oak ..	.. American	14/0	Per foot cube delivered
	Ditto ..	.. English	13/0	
	Ditto ..	.. European	21/0	
	Ditto ..	.. Japanese	20/0	
	Oil ..	.. Linseed, boiled ..	4/5	Per gall.
	Ditto ..	.. Ditto, raw	4/2	ditto
P	Paint ..	.. Mixed	80/0	Per cwt. d/d
			2″ 3″	
	Partitions	.. Breeze	2/0 2/7	Per yard sup. d/d
	Plaster ..	.. Paris, coarse	70/0	Per ton delivered
	Ditto ..	.. Sirapite ,, ...	70/0	
	Ditto ..	.. Slabs, ceiling	2/3	Per yard
	Putty ..	.. Glazing	18/0	Per cwt.
			5″ 6″	
R	Rain water	.. Gutters, O.G. ..	2/2 2/8	Per yard d/d
			3″ 4″	
	Ditto ..	.. Pipes, round	2/2 3/0	
	Roofing, iron	.. Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	.. Ordinary	13/0	Per yard cube d/d
	Ditto ..	.. Washed	14/0	
			No. 8 No. 10	
	Sash ..	.. Lines, flax	3/8 4/6	Per knot
	Ditto ..	.. Weights, iron ..	12/0	Per cwt.
	Ditto ..	.. Ditto, lead	40/0	Ditto
	Size ..	.. Best	5/6	Per fkn.
	Slates ..	.. 20″ × 10″, Welsh ..	430/0	Per 1,000
	Ditto ..	.. 14″ × 9″, ditto	175/0	Ditto
	Soil pipes	.. L.C.C., iron, 4″ ..	5/1	Per yard
	Solder ..	.. Plumbers'	1/0	Per lb.
	Steam ..	.. Tubes, Standard list ..	—40%	Delivered
	Ditto ..	.. Fittings, ditto ..	—40%	Ditto
	Ditto ..	.. Tubes, galvanised ..	—25%	Ditto
	Steel ..	.. Angles	14/6	Per cwt.
	Ditto ..	.. Bolts	36/0	Ditto
	Ditto ..	.. Joist	13/0	Ditto
	Ditto ..	.. Stanchions	17/0	Ditto
	Stone ..	.. Bath	3/9	Per foot cube d/d
	Ditto ..	.. Portland	5/3	
	Ditto ..	.. York	6/0	
T	Tar ..	.. Stockholm	1/0	Per gallon
	Teak ..	.. Eng.	12/0	Per foot cube d/d
	Ditto ..	.. Moulmein	19/0	
	Terebine ..	.. ..	13/6	Per gallon
			2″ 4″	
	Thimbles ..	.. Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	.. Plain, roofing ..	120/0	Per 1,000
	Ditto ..	.. 6″ × 6″, white glazed ..	12/6	Per yard
	Timber ..	.. Deal, joinery	5/9	Per foot cube d/d
	Ditto ..	.. Ditto, Carpenters'	3/6	
	Ditto ..	.. Slating battens ..	3/0	Per 100 feet
			1½″ 2″	
	Traps ..	.. Cast, lead, S.	3/0 4/3	Each
	Ditto ..	.. Ditto, P.	2/4 3/5	Ditto
	Turpentine	..	9/6	Per gallon
			½″ ¾″ 1″	
U	Unions ..	.. Plumbers'	1/4 2/0 3/0	Each
			½″ ¾″ 1″	
V	Valves ..	.. Ball	5/6 7/9 13/4	Each
	Varnish ..	.. Hard, oak	15/0	Per gallon
	Ditto ..	.. Copal	17/0	Ditto
	Ditto ..	.. Flat	16/0	Ditto
W	Whiting ..	.. Gilders'	3/0	Per cwt.
	Wire ..	.. Guards, galvd. ..	2/6	Per foot super
			2″ 4″	
	Ditto ..	.. Balloon, ditto, ditto ..	5*d.* 6*d.*	Each
	Ditto ..	.. Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	.. Sheeting ..	40/0	Per cwt.
	Ditto ..	.. Ditto, perforated	4*d.*	Per foot super.

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FRIDAY, JUNE 22, 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ACCRINGTON.—June 30.—For the erection and completion of part of the dwelling houses comprised in blocks A and B of the proposed housing scheme on the Laneside estate, for the Housing Committee. Mr. W. J. Newton, F.S.A., etc., architect, Town Hall, Accrington.

CHAPEL-EN-LE-FRITH.—June 30.—For erection of a buff brick chimney 60 feet high, also for construction of the necessary flues, for the Guardians. Mr. J. B. Boycott, clerk, Union Offices, Chapel-le-Frith.

CLOWN.—For erection and completion of 86 houses at Barlborough, Clown and Whitwell, for the Clown Rural District Council. Mr. J. Haslam, architect and surveyor, Worksop.

DARLINGTON.—July 3.—For alterations and repairs to the High Beaumont Hill Farm, near Darlington, for the Durham County Agricultural Committee. Mr. W. Carter, A.R.I.B.A., Shire Hall, Durham.

DARLINGTON.—July 9.—For erection of 26 houses on the Cockerton site, for the Corporation. The houses are in pairs, and builders may tender for any of the blocks to be erected. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

DEWSBURY.—June 30.—For the excavators', bricklayers' and masons', carpenters' and joiners', plumbers' and glaziers', plasterers', slaters' and painters' works required in the erection and completion of 50 houses on the Beckett Lane site, for the Corporation. The Borough Engineer, Town Hall, Dewsbury. Deposit £1 1s.

DIDSBURY.—July 6.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of a new telephone exchange at Didsbury. Deposit £1 1s. The Post Office, Didsbury, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

GALASHIELS.—July 3.—For the excavator, concretor and brick works, carpenter and joiner works, glazier works, slater work, plumber and gasfitter works, and plaster work of five blocks, each containing two houses, for the Town Council. Mr. E. Grieve, architect, Selkirk, or Messrs. Peter Lawrence & Co., surveyors, 50A, Frederick Street, Edinburgh, or Mr. J. B. Lumsden, town clerk, Galashiels.

GREENWICH.—July 10.—For erection of a convenience at Charlton Cemetery, for the Metropolitan Borough Council. The Borough Engineer's Office, Town Hall, Greenwich, S.E.10.

HALIFAX.—July 2.—For alterations to premises, Town Hall Street East (all trades), to provide electricity showrooms, for the Electricity Committee. Deposit £2 2s. The Borough Engineer, Crossley Street, Halifax.

HOGHTON.—July 7.—For erection of six houses at Hoghton, for the Chorley Rural District Council. Deposit £2 2s. Mr. J. B. Jolly, architect, 9 High Street, Chorley.

HULL.—For taking down a 100 feet high brick chimney shaft at the St. Andrew's Dock, Hull. Messrs. Freeman, Son & Gaskell, 11 Carr Lane, Hull.

INVERNESS.—June 30.—For erection of seven blocks of houses at Bellfield Park, including mason and brick, carpenter and joiner, slater, plumber and drainage, and lath and plasterer works, for the Town Council. Mr. G. S. Laing, town clerk, Town House, Inverness.

LEEDS.—July 3.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of a new telephone exchange at Roundhay. Deposit £1 1s. H.M. Office of Works, Stanfield Chambers, 6 Great George Street, Leeds, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

LONDON.—June 26.—For additions and alterations to the central fire station, adjoining the Green, High Road, Tottenham, for the Urban District Council. Deposit £1 1s. The Engineer to the Council, Town Hall, Tottenham, N.15.

LONDON.—July 3.—For providing and fixing wood and glass enclosures to three sunning balconies at St. James' Hospital, Ouseley Road, Balham, S.W.12, for the Guardians of Wandsworth Union. Mr. F. J. Curtis, clerk, Union Offices, St. John's Hill, Wandsworth, S.W.18.

LONDON.—July 6.—For two contracts for erection of cottages on the Roehampton estate, Putney, for the London County Council. The contracts, which will comprise 205 and 158 cottages respectively, are to be the subject of separate tenders, but tenderers who are prepared to undertake the two contracts are requested to state on what terms they will execute both contracts concurrently. Deposit £3. The Architect to the Council, County Hall, Westminster Bridge, S.E.1.

LLANELY.—July 3.—For erection of an engine shed, for the Great Western Railway Co. The Chief Engineer, Paddington Station, London, W.2.

LYTHAM ST. ANNES.—July 2.—For erection of clubhouse on their new course in Lytham Park, for the Fairhaven Golf Club, Ltd. Deposit £2 2s. Mr. W. Thornley, M.S.A., architect, 46, Wallgate, Wigan.

METHLEY.—July 7.—For erection and completion of 18 Class A State-assisted houses, in blocks of two, on the Mickletown housing site, for the Methley Urban District Council. Surveyor, Mr. T. Thompson, Red House, Methley.

NEWCASTLE-UPON-TYNE.—July 2.—For the construction, erection and maintenance of a single storey transit shed about 4,950 square yards in area, for the City Council. The contract will include steelwork, corrugated iron roof covering, sliding doors, glazing, etc. Deposit £3 3s. The City Engineer, Town Hall, Newcastle-upon-Tyne.

NEWPORT.—July 3.—For converting and fitting premises at Newport High Street Station as a workshop, for the Great Western Railway Co. The Chief Engineer, Paddington Station, London.

NEWQUAY.—July 7.—For erection of a bungalow and motor-house in Ulalia Road, Newquay. Mr. C. Truscott, architect, Downgate, Pensilva, Liskeard.

NORTH SEATON.—July 5.—For erection of a welfare institute at North Seaton Colliery. Deposit £2. Mr. C. Franklin Murphy, Lloyd's Bank Chambers, Morpeth.

OSWESTRY.—June 28.—For erection of the refuse pulveriser building at the sewage disposal works, Shrewsbury Road, for the Town Council. Mr. G. W. Lacey, borough engineer and surveyor, Guildhall, Oswestry.

PENARTH.—July 2.—For building 12 houses on sites in Andrew Road, Cogan, for the Urban District Council. Deposit £2 2s. The Council Offices, Penarth.

PLYMOUTH.—July 2.—For erection of 52 houses at North Prospect (Section No. 2), for the Town Council. Deposit £2 2s. Mr. T. P. Frank, M.I.C.E., F.S.I., borough surveyor, Municipal Offices, Plymouth.

RAMPTON.—July 17.—The Commissioners of His Majesty's Works, etc., invite tenders before July 17 for superstructure of the new Male Block, additions to Laundry, erection of cottages and drainage work at the Rampton State Institution. Deposit £1 1s. The Clerk of Works at the site, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

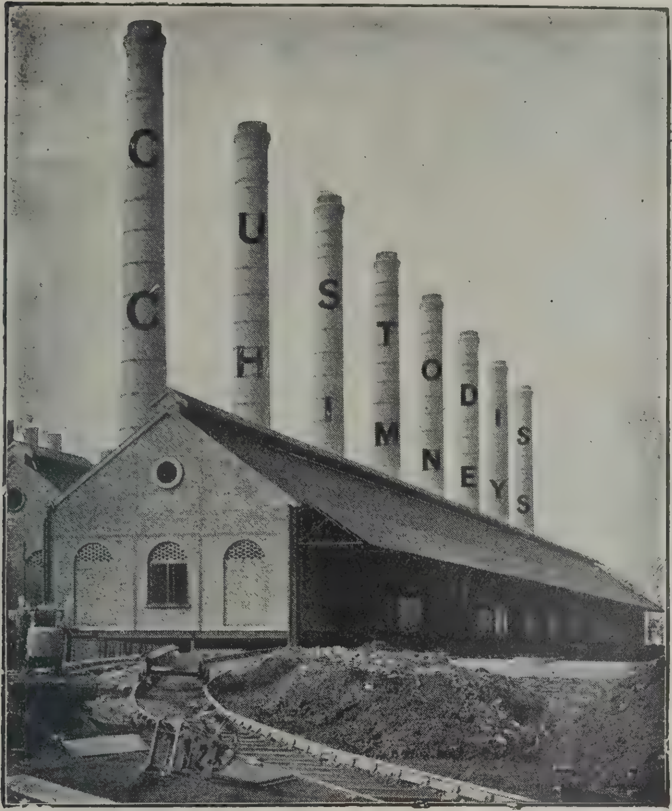
SHREWSBURY.—July 3.—The Commissioners of His Majesty's Works, etc., invite tenders for alterations to the Telephone Exchange, Shrewsbury. The Head Post Office, Shrewsbury, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

SOUTHALL.—June 26.—For the following works, for the Southall-Norwood Urban District Council, viz. :—(*a*) Erection of a cubicle block at the Sanatorium, Southall; (*b*) erection of a public convenience at Southall Park; and (*c*) erection of shelter at Southall Park. Mr. J. B. Thomson, A.M.I.C.E., engineer and surveyor, Town Hall, Southall.

SWANSEA.—June 29.—For erection of 21 houses on the "Fforest Fach" estate, for the Corporation. Deposit £3 3s. Mr. E. E. Morgan, A.R.I.B.A., borough architect, 3 Prospect Place, Swansea.

THORNTON HEATH.—For (1) isolation buildings; and (2) nurses' institute at the Infirmary, Mayday Road, Thornton Heath, for the Croydon Board of Guardians. Deposit £5 5s. Mr. H. Berney, architect, 33–35, High Street, Croydon.

WIDNES.—June 28.—For erection of engine, pump, and boiler house at Belle Vale, Gateacre (about half a mile from Gateacre Station), for the Town Council. Deposit £2 2s. Mr. C. E. Dickinson, gas and water engineer, Ann Street, Widnes.



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CURRENT LONDON PRICES.

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These Prices apply to a New Building, costing from £1,000 upwards, and easy of access. They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

PRELIMINARIES.

Allow for General Foreman, according to nature of contract, for duration of contract	From £5 10*s*. per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract	1%
Allow for insurance against fire, ditto	⅛%
Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s*.
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

DEMOLITION	Per Ft. Super reduced	
	In small quantities	In considerable quantities
Pull down brickwork	6*d*.	2*d*.
Add, if in *very* small quantities not exceeding 21 ft.	3*d*	
Add for filling baskets with *debris* and running same out to carts	1½*d*.	1½*d*.
Add if *debris* has to be raised or lowered to ground level	2*d*.	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d*.	2½*d*.

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube		
	To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/0	8*d*.
Planking and strutting	4*d*. per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	3/0
Add if in ground floors	2/0	2/10	3/0
Add if in beams or lintels	3/0	4/0	3/0

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	2/6	3/6	11/6	20/0
Ditto, for junctions, each	3/0	4/3	19/0	35/0
Gullies, including concrete surround and iron grating, each	15/0	17/6	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced		
	Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
„ „ cement mortar	584/0	730/0	1065/0

Damp course	Per Foot Super.	
	Horizontal	Vertical
Two courses of slates in cement	10*d*.	1/3
¾-in. asphalte	10*d*.	1/3

Facings	Per Foot Super.	
	Flemish bond	English bond
Allow for every 5*s*. additional cost of the facing bricks over the common brick basis	¼*d*.	¼*d*. plus 10%

Pointing (exclusive of scaffolding)	Per Ft. Super
Weather joint in cement	2½*d*.
Flat joint in cement (struck) and lime whiting	1½*d*.

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d*.
In rubbed and gauged arches with fine joints	7/6

Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s*. per thousand additional cost of bricks over the common basis price	¼*d*. plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.				
	1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube		
	Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	12/0	16/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0

	To Elevation generally
Portland stone and all labours of usual character	20/0
Bath stone ditto	10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Pane
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d*.	3¾*d*.	4*d*.	4½*d*.
Add for each side bead butt	4*d*.	4*d*.	4½*d*.	5*d*.

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d*.

	Per Foot Cube		
	Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

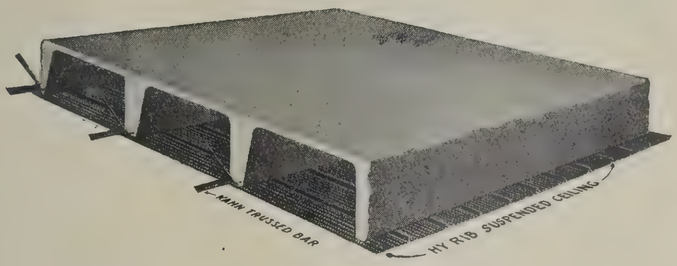
Fillets, rails and frames. Per foot run	Sectional Area							
	1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in
Deal, wrot and fixed	2½*d*.	3½*d*.	5*d*.	6¼*d*.	9*d*.	11½*d*.	1/1	1/2
Deal, wrot fixed and moulded	2¾*d*.	4*d*.	5½*d*.	7*d*.	10*d*.	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d*.	8½*d*.	11*d*.	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

CIRCULAR WORK: Add to the price of similar straight work one-third for every eighth of an inch rise on a foot chord line.

TRUSCON HOLLOW FLOOR

Long Span Slabs with Flat Ceilings



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CURRENT LONDON PRICES—*Continued.*

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JOINER—*Continued.*

	Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
	Per Foot Run			
Labour only to	½*d.*	1*d.*	½*d.*	2*d.*

Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	45/3	51/6	54/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints .. .	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		2in.	4in.
		Per Foot Run	
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Countess	Ladies
	Per Square	
Welsh slating laid to a 2½in. lap with two composition nails to each slate	82/6	72/6
Add for every ½in. additional lap	2/3	3/7
Add for copper nails	2/3	3/4

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	60/0
Asbestos corrugated roofing with galv. screws and limpet washers ..	72/6
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	70/0
Add for vertical work	2/6
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Up to 1st Floor	Above 1st Floor	
	Per Cwt.		
Rolled steel joists	16/6	18/6	
Compound girders	20/0	22/0	
Stanchions	22/0	24/0	
Cast-iron columns	15/6	17/6	
	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	2in.	3in.	4in.
	Per Foot Run		
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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Cheap and efficient substitute for Plaster

London Wallboard is waterproofed and fire resisting.

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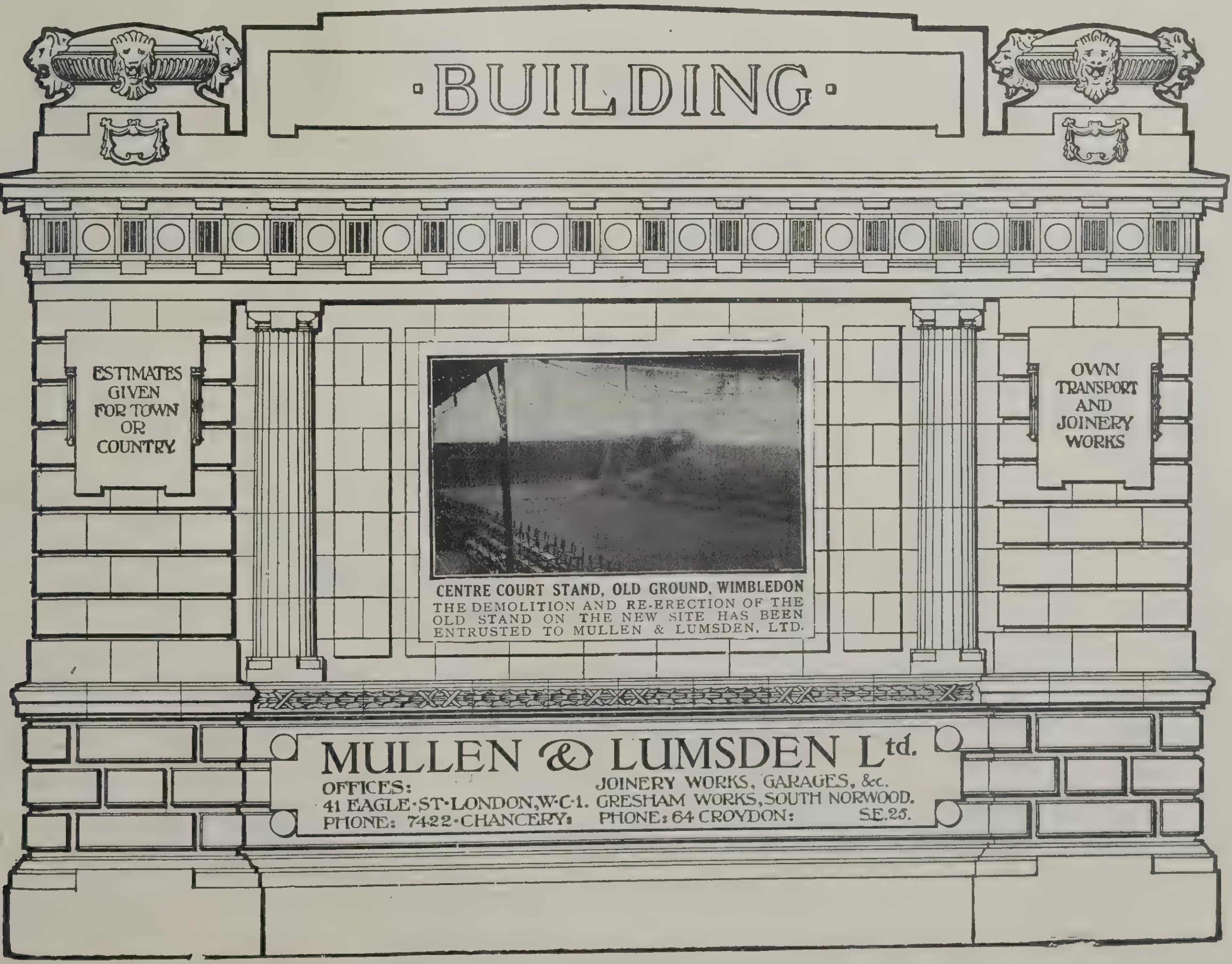
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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in.
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run			
			Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/3	0/4½	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/4	0/4½	0/2	0/3	0/1½	0/6
Do. do. Portland ..	3/2	0/6½	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/7	0/7½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	1/11	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅔rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super.		
	2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super.		
	Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass		Figured Rolled	¼in. Rolled	Cast Glass		¼in. Wired Cast Glass	Metal bar Patent Glazing
21oz.	15oz.			3/16in.	¼in.		
0/8½	0/6½	1/0¾	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super			
	Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following					
If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0

Add for:—

Moulded work ..	Add 20 per cent. to the above prices.
Carved work ..	Add 150 per cent. to the above prices.
Party colours ..	Add 2*d.* per yard super.
Stippling ..	Add 2*d.* per yard super.

If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super	
	Wax	French
Polishing	6*d.*	1/0

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls	1/5	2/2
On stairs	1/10	2/9
On ceilings	1/7	2/5

THE WELL-KNOWN FRIEZE
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Length, Fourteen Feet Seven Inches by Fifteen Inches deep.
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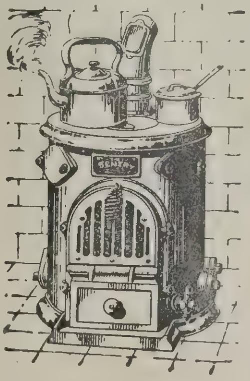
SENTRY Boilers

Because



The SENTRY is an attractive coke-fired Boiler which provides a continuous supply of hot water, has a large hotplate for cooking and an open fire when required. It is made with a large and well protected mica front.

Made in 5 sizes, in Cast Iron, Wrought Iron or Copper

SENTRY Boilers in Wrought Iron are more durable for use with hard water, and the small extra cost over Cast Iron is negligible.

IMPORTANT

In all sizes of **Sentry** Boilers the waterway extends six inches below the fire bars to allow any sediment to fall to the coolest part of the boiler; this is an absolute necessity in any boiler used for hot water supply if its early destruction through incrustation is to be avoided—Large and well placed mud hole covers readily facilitate the cleaning of the boiler and the removal of the deposit.

SENTRY Boilers can be inspected and further information obtained from the

Designers and Sole Manufacturers:

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36, OXFORD STREET, LONDON, W.1

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CHARLTON, LONDON, S.E.

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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber *previous* to 26 May 1923 *only*	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Reinforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May 26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage	Pipes, iron, 2"	3/0	Per yard
	Asbestos	Sheeting	1/9	Ditto
	Ditto	Ditto, corrugated	3/6	Ditto
	Aluminium	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast	Thames	10/0 13/6	Per yard cube delivered
	Ditto	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves	Brass	5/6 7/9 13/4	each
	Brick	Broken	10/6	Per yard cube d/d
	Ditto	Hardcore	5/0	
	Bricks	Blue, wirecuts	145/6	
	Ditto	Ditto, pressed	185/6	Per 1,000 F.O.R. London
	Ditto	Firebricks	223/0	
	Ditto	Fixing, breeze	80/0	
	Ditto	Flettons	53/3	
	Ditto	Reds	110/0	
	Ditto	Rubbers	244/0	
	Ditto	Stocks	92/6	Delivered
	Ditto	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto	Ditto headers	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze	Coke	10/6	Per yard cube d/d
	Ditto	Pan	5/6	
C	Cartage	Of Bricks, blue	12/6	Per 1,000 from rail to job
	Ditto	Of ditto, Flettons	9/0	
	Ditto	Of ditto, glazed	15/0	
	Cement	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list	−22½%	F.O.R. London
	Ditto	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron	Pipes	5/6 8/7	Per yard delivered
	Driers	For paint	60/0	Per cwt.
E	Enamel	White, best	25/0	Ditto, per gallon
F	Felt	Roofing	9/7	Delivered, per square
	Fireclay	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto	Ditto, G. & T.	27/0 34/0	
G	Gas	Tubes, Standard list	— 50%	Delivered
	Ditto	Fittings, ditto	— 50%	Ditto
	Ditto	Tubes, galvanised	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup	1/6	Per foot super at Merchant's depot
	Ditto	Ditto 3 ditto	2/2½	
	Ditto	Ditto 5 ditto	2/11	
	Ditto	Ditto 7 ditto	3/4	
	Ditto	Ditto 10 ditto	3/7	
	Ditto	Ditto 25 ditto	3/9½	
	Ditto	Ditto 100 ditto	4/7	
	Ditto	Sheet, 15 oz.	3⅜*d.*	
	Ditto	Ditto 21 oz.	5½*d.*	
	Ditto	Ditto 26 oz.	6⅞*d.*	
	Ditto	Rough cast ¼"	6¾*d.*	
	Ditto	Wired, cast	10½*d.*	
	Ditto	Figured, rolled	8*d.*	
	Ditto	Flemish or Arctic	8*d.*	
	Ditto	Lead lights in plain sheet squares	2/0	
	Gold leaf	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite	Chippings	28/0	Delivered, per yard
	Ditto	Ditto	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT.
H	Hire	Horse, cart and man	25/0	Per day
	Ditto	Lorry and driver	80/0	Ditto
	Ditto	Steam roller Water cart and men	100/0	Ditto
	Ditto	Sacks	3*d.*	Each
	Hot water	Tubes, Standard list	— 45%	Delivered
	Ditto	Fittings, ditto	— 45%	Ditto
	Ditto	Tubes, galvanised	— 31¼%	Ditto
J	Joists	Steel, rolled	260/0	Per ton delivered
	Ditto	Wood, soft, 9"×3"	3/9	Per foot cube delivered
	Ditto	Ditto, ditto, 7"×2½"	3/2	
	Ditto	Ditto, ditto, 6"×2"	3/0	
K	Knotting		35/0	Per gallon
L	Lathing	Metal	1/0	Per yard
	Ditto	Wood, sawn	3/9	Per bundle
	Lead	Sheet	35/0	Per cwt.
	Ditto	Pipe	35/6	Ditto
	Ditto	Soil	38/0	Ditto
	Ditto	White	58/9	Ditto
	Lime	Grey stone	51/3	Per ton
	Ditto	Blue lias	58/6	Ditto
M	Mahogany	Honduras	19/0	Ft. cube
	Ditto	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching	Deal, T. G. & B.	18/0 21/0 28/0	Per square delivered
N	Nails	Brads, floor	22/9	Per cwt. delivered
	Ditto	Cut clasp	23/0	
	Ditto	Lath	31/0	
	Ditto	Wire, oval	26/0	
O	Oak	American	14/0	Per foot cube delivered
	Ditto	English	13/0	
	Ditto	European	21/0	
	Ditto	Japanese	20/0	
	Oil	Linseed, boiled	4/5	Per gall.
	Ditto	Ditto, raw	4/2	ditto
P	Paint	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster	Paris, coarse	70/0	Per ton delivered
	Ditto	Sirapite ,,	70/0	
	Ditto	Slabs, ceiling	2/3	Per yard
	Putty	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water	Gutters, O.G.	2/2 2/8	Per yard d/d
			3" 4"	
	Ditto	Pipes, round	2/2 3/0	
	Roofing, iron	Corrugated, galvd.	21/0	Per cwt.
S	Sand	Ordinary	13/0	Per yard cube d/d
	Ditto	Washed	14/0	
			No. 8 No. 10	
	Sash	Lines, flax	3/8 4/6	Per knot
	Ditto	Weights, iron	12/0	Per cwt.
	Ditto	Ditto, lead	40/0	Ditto
	Size	Best	5/6	Per fkn.
	Slates	20"×10", Welsh	430/0	Per 1,000
	Ditto	14"×9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4"	5/1	Per yard
	Solder	Plumbers'	1/0	Per lb.
	Steam	Tubes, Standard list	—40%	Delivered
	Ditto	Fittings, ditto	—40%	Ditto
	Ditto	Tubes, galvanised	—25%	Ditto
	Steel	Angles	14/6	Per cwt.
	Ditto	Bolts	36/0	Ditto
	Ditto	Joist	13/0	Ditto
	Ditto	Stanchions	17/0	Ditto
	Stone	Bath	3/9	Per foot cube d/d
	Ditto	Portland	5/3	
	Ditto	York	6/0	
T	Tar	Stockholm	1/0	Per gallon
	Teak	Eng.	12/0	Per foot cube d/d
	Ditto	Moulmein	19/0	
	Terebine		13/6	Per gallon
			2" 4"	
	Thimbles	Brass, Plumbers'	2/0 3/8	Each
	Tiles	Plain, roofing	120/0	Per 1,000
	Ditto	6"×6", white glazed	12/6	Per yard
	Timber	Deal, joinery	5/9	Per foot cube d/d
	Ditto	Ditto, Carpenters'	3/6	
	Ditto	Slating battens	3/0	Per 100 feet
			1½" 2"	
	Traps	Cast, lead, S.	3/0 4/3	Each
	Ditto	Ditto, P.	2/4 3/5	Ditto
	Turpentine		9/6	Per gallon
			½" ¾" 1"	
U	Unions	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves	Ball	5/6 7/9 13/4	Each
	Varnish	Hard, oak	15/0	Per gallon
	Ditto	Copal	17/0	Ditto
	Ditto	Flat	16/0	Ditto
W	Whiting	Gilders'	3/0	Per cwt.
	Wire	Guards, galvd.	2/6	Per foot super
			2" 4"	
	Ditto	Balloon, ditto, ditto	5*d.* 6*d.*	Each
	Ditto	Ditto, ditto, copper	1/0 1/4	Ditto
Z	Zinc, V.M.	Sheeting	40/0	Per cwt.
	Ditto	Ditto, perforated	4*d.*	Per foot super.

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FRIDAY, JUNE 29. 1923

Owing to the increasing demand for back numbers we are compelled to give the following notice :—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

TENDERS, &c.

⁂ *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

CONTRACTS OPEN.

ANDOVER.—July 17.—For erection of a secondary school at Andover for 168 girls, for the Hants County Council. Deposit £5 5s. Mr. A. L. Roberts, county architect, The Castle, Winchester.

BRADFORD.—July 7.—For erection of the following houses in accordance with the conditions stated below, for the Corporation: Housing scheme No. 1, Odsal—218 houses, Class A, 24 houses, Class A2, 28 houses, Class B. (1) Contractors may tender for separate trades or for the whole of the work in all trades complete; (2) the tenders shall be based upon fixed prices for labour and materials. The City Architect, Town Hall, Bradford.

BRIDGWATER.—For alterations and additions to Quantock Lodge, Overstowey, for use as a tuberculosis sanatorium, together with a laundry and power house, for the Somerset County Council (Messrs. Martin & Martin and W. H. Ward, architects, Birmingham). Send applications by June 30 to Mr. G. I. Simey, clerk, Sidney House, Boulevard, Weston-super-Mare.

BRIGHTON.—July 12.—For erection of 28 houses in Nesbitt Road, Brighton, for the Corporation. The Borough Surveyor, Town Hall, Brighton.

BURY.—July 11.—For erection and completion of a children's ward and appurtenant works at the Bury Infirmary at Seedfield, for the Bury War Memorial Committee. Deposit £2. Mr. J. A. Settle, borough engineer, Bury, Lancs.

CHESTERFIELD.—July 7.—For extension of the women's pavilion at the Walton Sanatorium, to provide a recreation room, for the Derbyshire County Council. Deposit £1 1s. Mr. G. C. Copestick, Licentiate R.I.B.A., New County Offices, Derby.

DUDLEY.—July 4.—For erection of twenty houses on the Woodside site, adjoining the Stourbridge Road, Holly Hall, for the Corporation. Send applications and £5 5s. deposit by July 4 to Mr. F. H. Gibbons, M.Inst.M. and G.E., housing director, Town Hall, Dudley.

EAST ELLOE, LINCS.—July 5.—For erection of the following cottages, for the East Elloe Rural District Council:—Fleet (near Workhouse), two pairs; Lutton Bank (late Sunderland's), six pairs; Tydd St. Mary (Drawdike, late Glebe), three pairs; Gedney Fen (Bells Bridge), four pairs; Sutton St. James (Birds Drove), two pairs; and Sutton St. Edmund (late Lees), four pairs. Tenders may be for one or more pairs, and contractors should state the total number of pairs they are prepared to erect. Mr. S. S. Mossop, Junr., clerk, West End, Holbeach.

EPSOM.—July 7.—For the supplying of material and the erection of a granite wall to take names and railings around the War Memorial, for the Epsom Urban District Council. Contractors may tender separately for (*a*) the supply of materials; and (*b*) the erection. Messrs. J. Hatchard-Smith & Son, F.R.I.B.A., architects and surveyors, 11 Haymarket, S.W.1.

GLASGOW.—July 10.—For the following works required in connection with erection of 138 houses in Campbell Street, Springburn, for the Corporation, viz.: (1) Excavator, mason and brick works; (2) carpenter, joiner and ironmonger works; (3) slater work; (4) plumber and gasfitter works; (5) plaster work; (6) glazier work. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

GRIMSBY.—July 2.—For alterations and additions to the Nurses' Home kitchen at the Scartho Road Institution Infirmary, for the Guardians. Mr. Wells, architect, Prudential Chambers, Victoria Street, Grimsby.

HARROGATE.—July 16.—For erection of a meter-house at the gasworks, Ripon Road, for the Gas Company. Mr. F. H. Robinson, A.M.I.C.E., engineer, Gas Office, James Street, Harrogate.

HEMSWORTH.—July 17.—For erection of a new laundry, comprising wash-house, ironong room, engine-room, boiler house, conveneinces, and detached chimney stack, etc., for the Board of Guardians. Deposit £2 2s. Mr. W. T. Lynam, A.M.I.C.E., engineer and surveyor, Hemsworth Rural District Council, Hemsworth, near Wakefield.

HENDON.—July 16.—For erection of 13 blocks of flats, Bittacy Hill, and Sanders Lane, Mill Hill, for the Hendon Urban District Council. Deposit £3 3s. Mr. A. O. Knight, A.M.I.C.E., engineer, Hendon.

HULL.—July 5.—For repairs to the interior of warehouse, Blanket Row. The City Architect, Guildhall, Hull.

ILKLEY.—For the separate trades in the erection of two houses at Wood Rhydding, Ilkley. Mr. J. Wilcock, architect and surveyor, 106 Skipton Road, Ilkley.

LOCKWOOD.—July 5.—For the various trades required in the erection of detached house, Woodside Road, Lockwood, Yorks. Mr. J. Ainley, architect and surveyor, 3 Chapel Hill, Huddersfield.

LONDON.—July 6.—For nurses' home at St. James's Hospital, Ouseley Road, Balham, S.W.12, for the Guardians of Wandsworth Union. Deposit £2. Messrs. J. S. Gibson & Gordon, architects, 5, Old Bond Street, W.1.

LONDON.—July 6.—For the adaptation of No. 1 Wellington Road, Bow Road, E.3, to a tuberculosis dispensary, for the Poplar Borough Council. Mr. H. Heckford, M.I.C.E., borough surveyor, Council Offices, High Street, Poplar, E.14.

LONDON.—July 13.—For carrying out works of repairs, structural alterations, with new back additions, &c., to convert 10 houses in Wilford Road, Croydon, into 20 self-contained tenements, for the Croydon Town Council. Deposit £2 2s. The Borough Engineer, Town Hall, Croydon.

MANCHESTER.—July 9.—For erection of a boiler-house at the Moss Side Baths, for the Baths and Washhouses Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MELTHAM.—July 9.—For the necessary works in the erection of ten non-parlour houses in two blocks at Broadlands, Meltham, and also for the construction of a new street, for the Urban District Council. Messrs. Abbey & Hanson, architects, 11 Cloth Hall Street, Huddersfield.

OSSETT.—July 6.—For erection of 47 houses on the Horbury Road site (contract No. 8); pair of houses, type No. 1, and pair of houses, type No. 2, on the Leeds Road site, for the Town Council. Mr. H. Holmes, M.I.C.E.I., borough engineer and surveyor, Town Hall, Ossett, Yorks.

OWLERTON.—July 10.—The Commissioners of His Majesty's Works, etc., invite tenders for erection of a telephone exchange at Owlerton, Sheffield. Deposit £1 1s. The Head Post Office, Sheffield, or the Contract Branch, H.M. Office of Works, King Charles Street, London, S.W.1.

PLYMOUTH.—July 9.—For (1) alterations and additions to King Street Council Schools, Devonport; (2) new sanitary conveniences, etc., for the Devonport High Schools for Boys, for the Education Authority. Mr. C. Cheverton, architect, Chapel Street, Devonport.

PLYMOUTH.—July 9.—For erection of emergency exit at Central Free Library, for the Corporation. Mr. T. Peirson Frank, borough engineer, Municipal Offices, Plymouth.

PONTEFRACT.—July 2.—For the works required in erection and completion of a new hotel, Gillygate, Pontefract, for Messrs. Carters' Brewery Co., Knottingley. Send names by July 2 to Messrs. Tennant & Smith, architects and surveyors, Pontefract.

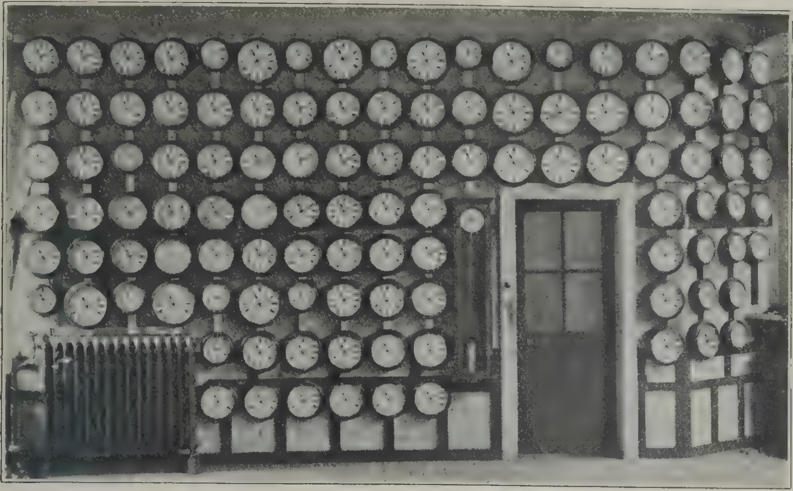
REDRUTH.—July 5.—For additions and alterations to 14 Green Lane, Redruth, for Miss White. Mr. L. Winn, M.S.A., architect and surveyor, 27 Boscawen Street, Truro, and 10 Clinton Road, Redruth.

SHEFFIELD.—July 4.—For erection of the second instalment of 150 houses on the Manor Estate, City Road, Intake, for the Estates Committee. Deposit £2. Mr. F. E. P. Edwards, city architect, Town Hall, Sheffield.

STANNINGLEY.—For the various works in erection of memorial institute at Stanningley. Mr. W. P. Peters, architect, 89 Albion Street, Leeds.

TRURO.—July 6.—For erection and completion of a bungalow in Falmouth Road. Mr. A. J. Cornelius, F.S.A., architect and surveyor, Truro.

WHITCHURCH, near CARDIFF.—July 4.—For erection of a depot at Velindra Road, Whitchurch, consisting of cart house, stores, steam roller house, workshop, cottage, etc., for the Rural District Council. Mr. W. Farrow, engineer, 20 Park Place, Cardiff.



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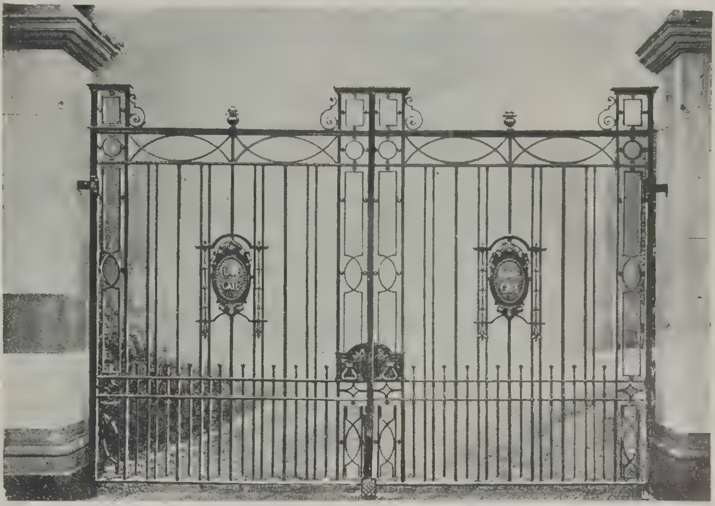

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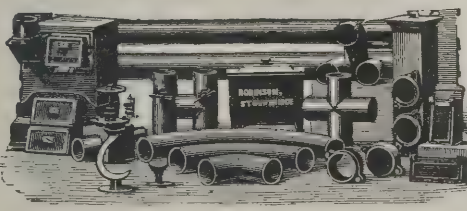

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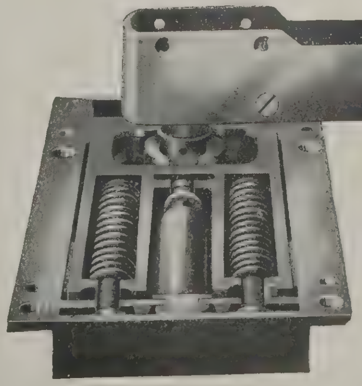

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Allow for water, ditto	⅜%
Allow for District Surveyor's Fees	
For a new building 400 square feet in area and two storeys high	45/0
Add for every additional 100 feet in area	3/9
Add for every additional storey in height	7/6
Add for inspection of fire exits, &c., under Amendment Act, 1905—the greater of these alternatives	⅕th of the above fees or £1 1*s.*
Allow for supervision of plastering	7/6
Allow for filling in trenches within three feet of a building	7/6
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations	*say* £10
Ditto, for licences from Borough Councils	*say* £1
Allow for mess and material sheds, offices, &c.	from £50

	Per Foot Run
Hoarding complete	5/0
Planked gangway with handrail complete	4/0
Proper gantry complete	40/0
Sleeper roadways	8/0

	Per Foot Cube
Needling, strutting or shoring, including all labours and use and waste in erection and removal	5/0

	Per Ft. Super reduced	
DEMOLITION	In small quantities	In considerable quantities
Pull down brickwork	6*d.*	2*d.*
Add, if in *very* small quantities not exceeding 21 ft.	3*d.*	
Add for filling baskets with *debris* and running same out to carts	1½*d.*	1½*d.*
Add if *debris* has to be raised or lowered to ground level	2*d.*	Usually dropped
Add for cartage when same costs 4/6 per 1½ yard load	2½*d.*	2½*d.*

Clean and stack old bricks	20/0 per thousand
Hack off old plaster	1/0 per sq. yd.

EXCAVATOR, CONCRETOR AND DRAINS.

	Per Yard Cube		
	To 6 ft. deep	6 ft. to 12 ft. deep	Add if in trench
Excavate in common soil, wheel, fill carts and cart away	9/6	11/0	8*d.*
Planking and strutting	4*d.* per foot super.		
Planking, strutting and shoring	1/0 „ „		

	1 to 6	1. 2. 4.	Hoisting
Portland cement and ballast Concrete in foundations	30/0	40/0	2/6
Add if in ground floors	2/0	2/10	2/6
Add if in beams or lintels	3/0	4/0	2/6

	Earthenware		Iron	
	4 in.	6 in.	4 in.	6 in.
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run	1/8	2/6	2/7	3/11
Extra only for bends, each	2/6	3/6	11/6	20/0
Ditto, for junctions, each	3/0	4/3	19/0	35/0
Gullies, including concrete surround and iron grating, each	15/0	17/6	45/0	60/0

BRICKWORK (Exclusive of Pointing).

	Per Rod Reduced		
	Flettons	Stocks	Blues
Built in 1 to 3 lime mortar	554/0	700/0	1035/0
„ „ cement mortar	584/0	730/0	1065/0

	Per Foot Super.	
Damp course	Horizontal	Vertical
Two courses of slates in cement	10*d.*	1/3
¾-in. asphalte	9*d.*	1/0

	Per Foot Super.	
Facings	Flemish bond	English bond
Allow for every 5*s.* additional cost of the facing bricks over the common brick basis	½*d.*	½*d.* plus 10%
Pointing (exclusive of scaffolding)		Per Ft. Super
Weather joint in cement		2½*d.*
Flat joint in cement (struck) and lime whiting		1½*d.*

ARCHES.

Extra over common brickwork	Per Ft. Super
In half-brick rings of bricks of same class as common brickwork	1/0
Add if of superior bricks for every 7/6 per thousand additional cost	1*d.*
In rubbed and gauged arches with fine joints	7/6
Quoins, angles, copings and sills of superior bricks	Per Ft. Run
Allow for every 5*s.* per thousand additional cost of bricks over the common basis price	½*d.* plus 10%
Double-tile creasing and cement fillets and pointing to 9-in. wall	1/2

PAVIOR.

	Per Yard Super.				
	1in.	1¼in.	1½in.	2in.	3in.
Cement and sand	3/9	4/3	4/9	5/8	
Granolithic	4/6	5/2	5/10	7/1	—
Asphalte	8/6	—	—	—	—
Tarmac	—	—	—	6/0	7/9

MASON.

	Per Foot Cube		
	Templates	Thresholds	Sills
York stone and all labours and mortar in hoisting and fixing	12/0	16/0	27/0
	Stairs		
Artificial stone	9/0	8/0	11/0
			To Elevation generally
Portland stone and all labours of usual character			20/0
Bath stone ditto			10/0

CARPENTER.

Flat boarded centreing, per yard super.	5/0
Centreing to beams, per yard super.	7/6
Centres to arches, per foot super.	2/0

	Plates	Floor	Roofs	Trusses
Fir framed in carpenter's work per ft. cube	4/0	6/0	5/10	8/9

At per square	¾in.	1in.	1¼in.
Deal close boarding	31/0	38/0	48/0
Battening for slates	10/0	11/0	12/0
Roofing felt lapped and laid	12/0 to 20/0		

Gutter boards and bearers per foot super.	1/0

JOINER.

Per square	⅝in.	¾in.	1in.	1¼in.
Deal plain-edged flooring	—	33/0	40/0	50/0
Deal tongued and grooved flooring	—	37/0	45/0	56/0
Deal matching	36/0	43/0	46/6	58/6

Sashes, per foot super.	1½ in.	2 in.
Deal moulded sashes, divided in squares	1/10	2/0

Windows, per foot super.	Very Small	Small	Normal	Large
Deal cased frames, 1in. linings, 1¼in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights	11/0	5/0	3/6	3/0

	1½in.		2in.	
Doors, per foot super.	2 Panel	4 Panel	4 Panel	6 Pane
Square frame both sides doors	2/0	2/3	2/5	2/8
Add for each side moulded	2½*d.*	3¾*d.*	4*d.*	4½*d.*
Add for each side bead butt	4*d.*	4*d.*	4½*d.*	5*d.*

Doors of hardwood, such as oak or mahogany, will cost three times as much exclusive of polishing.

Staircase.	
1¼ Deal tread, 1in. riser, fixed complete per foot super.	2/6
2in. Deal strings, per foot super.	2/0
Housing steps to strings, each	9*d.*

	Per Foot Cube		
	Very Small	Small	Large
Mahogany French-polished handrail	87/0	69/0	53/0
Add if ramped	120/0	100/0	80/0
Add if wreathed	240/0	200/0	160/0

	1¼in.	1½in.
Deal balusters, housed each end, each	1/3	1/5

	3 by 3	3½ by 3½	4 by 4
Deal newels, per foot run	1/2	1/6	1/9

Deal Super. Sundries	1in.	1¼in.	1½in.
Deal shelves or divisions	1/0	1/2	1/4
Deal shelves cross-tongued	1/2	1/4	1/6

Shelves, in oak or mahogany = 3 times value of deal, exclusive of polishing.

Deal skirtings, moulded and backings and grounds	1/4	1/6	1/8
Deal jamb linings, rebated and framed and backings	1/5	1/7	1/9

Skirtings and linings, in oak or mahogany—2½ times value of deal, exclusive of polishing.

	Sectional Area							
Fillets, rails and frames. Per foot run	1in.	2in.	4in.	6in.	9in.	12in.	14in.	16in.
Deal, wrot and fixed	2½*d.*	3½*d.*	5*d.*	6½*d.*	9*d.*	11½*d.*	1/1	1/2
Deal, wrot fixed and moulded	2¾*d.*	4*d.*	5½*d.*	7*d.*	10*d.*	1/0½	1/2	1/3
Deal, wrot, moulded, rebated, framed and fixed	—	—	7*d.*	8½*d.*	11*d.*	1/1½	1/3	1/4

Fillets, mouldings and frames in oak or mahogany will cost 3 times their value in deal, exclusive of polishing.

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Labour and Screws only Fixing									
			Locks and Furniture			Casement			
Barrel Bolts	Flush Bolts	Sash Fasteners	Rim	Mortice	Cupboard	Stays	Fasteners	Grip Handles	Spring Catches
1/0	2/0	1/0	2/0	4/0	1/3	1/0	1/0	1/0	1/0

PLUMBER.

	Soakers	Flats	Flashings and Gutters
	Per cwt.		
Milled lead and laying	45/3	51/6	54/6

Per Foot Run			Each		
Copper Nailing	Soldered Angle	Welted Joint	Bossed Ends to Rolls	Cesspools	Soldered Dots
4*d.*	2/0	4*d.*	6*d.*	5/6	2/0

	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3½in.	4in.
	Per Foot Run							
Lead service	1/4	1/9	2/2	2/9	3/1	3/10	—	—
Lead waste	1/0	1/4	1/7	1/10	2/2	2/8	—	—
Lead soil	—	—	—	—	—	—	5/1	5/6
	Each							
Egg Joints	2/3	2/9	3/2	3/7	4/7	5/10	8/0	9/0
Branch joints ..	2/6	3/0	3/6	4/0	5/0	6/6	9/0	10/0
Indiarubber joints ..	—	—	—	3/6	3/6	—	—	—
Stop end	9*d.*	1/0	1/3	1/9	2/0	2/6	—	—
Bends	—	—	—	—	2/10	3/3	8/2	9/9
Beaded ends	—	—	—	10*d.*	10*d.*	1/0	—	—
Single tacks	—	—	2/0	2/3	2/4	2/6	3/0	4/0
Double tacks	—	—	3/0	3/3	3/6	3/9	5/0	6/0
Brass slieves	—	—	—	—	10/0	11/3	16/3	17/9
Lead traps	—	—	—	9/3	11/10	16/0	25/0	30/0
Boiler screws	4/0	5/0	6/3	8/0	10/3	—	—	—
Bib cocks	7/0	9/6	13/6	—	—	—	—	—
Stop cocks	10/6	14/0	19/0	30/0	44/0	100/0	—	—
Ball cocks	9/0	12/6	18/9	30/0	42/0	92/6	—	—
Wire balloons	—	—	—	—	—	9*d.*	—	1/3

		2in.	4in.
		Per Foot Run	
Iron (L.C.C.) pipes			
Soil, vent, waste and anti-syphon pipes, coated lead caulked joints		2/0	3/0
Extra for bends	each	7/5	11/2
Extra for junctions	each	11/11	18/4

SLATER AND TILER.

ROOFING	Countess	Ladies
	Per Square	
Welsh slating laid to a 2½in. lap with two composition nails to each slate	80/0	72/0
Add for every ½in. additional lap	2/3	3/7
Add for copper nails	2/3	3/4

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	60/0
Asbestos corrugated roofing with galv. screws and limpet washers ..	72/6
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	70/0
Add for vertical work	2/6
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66⅔%

	Per Foot Run
Cuttings—Eaves	Equal 1 foot super.
Edges and abutments	Equal ½ foot super.
Ridge tiling	2/0
Fixing soakers	7*d.* per dozen

SMITH AND FOUNDER.

	Up to 1st Floor	Above 1st Floor
	Per Owt.	
Rolled steel joists	16/6	18/6
Compound girders	20/0	22/0
Stanchions	22/0	24/0
Cast-iron columns	15/6	17/6

	Light	Medium	Heavy
Steel roof trusses	32/6	30/0	27/6
Chimney bars	36/0	34/0	32/0
Tie rods and ring bolts	47/6	45/0	42/6
Bolts and nuts	45/0	40/0	35/0
Handrail and balusters	55/0	50/0	48/0
Steel reinforcing bars bent and fixed	22/0	21/6	21/0

Rain-water Goods	2in.	3in.	4in.
	Per Foot Run		
Pipes fixed with pipe nails	11*d.*	1/6	2/3
Bends or shoes, each	1/6	2/0	2/9
Junctions, each	2/3	3/0	4/0
	4in.	5in.	6in.
Gutters fixed with brackets	1/2½	1/6	1/10
Outlets and angles	1/9	2/6	3/1
Stop ends	10*d.*	1/0	1/1

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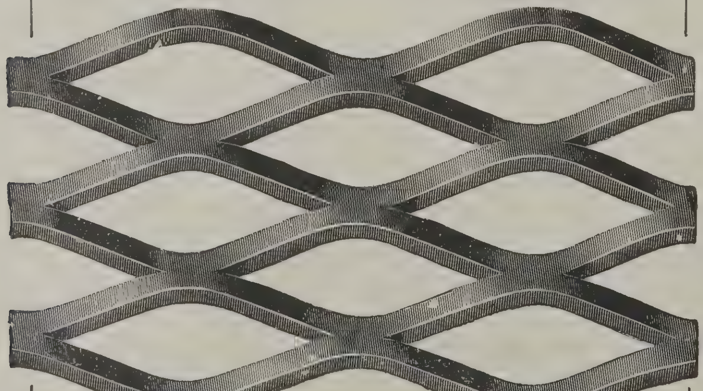

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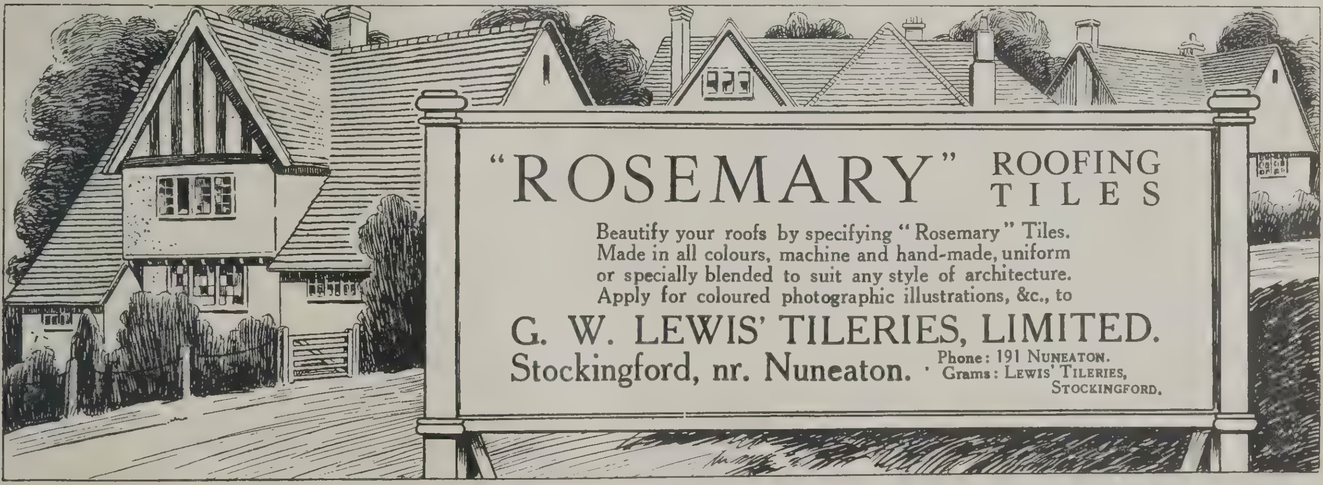

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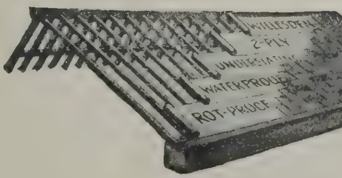

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CURRENT LONDON PRICES—*Continued.*

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GAS AND STEAM PIPES.

	Per Foot Run							
	Gas		Steam Tubing					
	½in.	¾in.	½in.	¾in.	1in.	1¼in.	1½in.	2in
Tubes and all fittings fixed with clips complete ..	1/0	1/1	1/3	1/6	1/9	2/2	2/6	3/2

PLASTERER.

On Walls and Ceilings	Per Yard Super	Narrow Widths per Foot Super	Per Foot Run Arris	Rounded Angle	Quirk	Flush or Staff Bead
Render, float and set in lime and hair ..	2/0	0/4	0/2	0/3	0/1½	0/6
Do. do. Siripite	2/1	0/4	0/2	0/3	0/1½	0/6
Do. do. Portland ..	2/10	0/5¾	0/2½	0/3½	0/2	0/7
Do. do. Keene's ..	3/3	0/6½	0/2½	0/3½	0/2	0/7
Sawn lathing	1/4	0/3	—	—	—	—
Metal lathing	1/9	0/3½	—	—	—	—
Screeding in Portland	1/11	0/4	—	—	—	—

Per Foot Run	Per 1in. Girth	Mitres	Stop Ends
Moulding in plaster	0/2	Equal to Value of 1 foot of moulding	Equal to ⅓rd. of a foot of moulding
Do. do. Portland ..	0/3		
Do. do. fibrous	0/3		

Partitions	Per Yard Super. 2in.	2½in.	3in.
Concrete slab partition fixed ready for plastering ..	5/0	5/6	6/0

GLAZING.

	Per Foot Super. Up to 10ft.	From 25 to 50ft.	From 5 to 100ft.
Ordinary plate glass glazed	4/5	5/0	5/7

Sheet Glass, glazed complete, per foot super.

Sheet Glass 21oz.	Sheet Glass 15oz.	Figured Rolled	¼in. Rolled	Cast Glass 3/16in.	Cast Glass ¼in.	¼in. Wired Cast Glass	Metal bar Patent Glazing
0/8¼	0/6½	1/0½	0/7¾	0/9	0/9¾	1/1¾	1/11

PAINTER AND DECORATOR.

Washable Distemper	Per Yard Super Wash and Stop	*Once* Distemper	*Twice* Distemper	Stipple
In common colour	0/3½	0/5	0/9	0/2
In carmine or ivy green or similar	0/3½	0/5½	0/10	0/2
In scarlet, ivy green, or similar ..	0/3½	0/7	1/1	0/2

Add per Yard Super. for the following

If on Moulded Work	If on Enriched Work	If in Party Colours on Small Panels	Medium Panels	Large Panels	If on Narrow Widths
100%	300%	0/3	0/2	0/1	0/3

PAINTING.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Per Yard Super Stain	Varnish	Flatting	Enamel
Plain paint ..	0/8	0/7½	1/2	1/8	2/2	0/2	0/4	0/6	0/9	0/7	1/0

Add for:—

Moulded work .. Add 20 per cent. to the above prices.
Carved work .. Add 150 per cent. to the above prices.
Party colours .. Add 2*d*. per yard super.
Stippling .. Add 2*d*. per yard super.

	Knot, Stop and Prime	Paint Coats 1	2	3	4	Size *Once*	*Twice*	Stain	Varnish	Flatting	Enamel
If on windows divided into squares ..	0/6	0/10	1/5	1/10	2/2	0/3	0/6	0/9	0/10	0/10	1/0
If in narrow bands or on pipes .. (Per Foot Run)	0/0½	0/0¾	0/1½	0/2	0/2½	0/0½	0/0¾	0/0¾	0/0¾	0/0¾	0/1

	Per Foot Super Wax	French
Polishing	6*d*.	1/0

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On stairs	1/10	2/9
On ceilings	1/7	2/5

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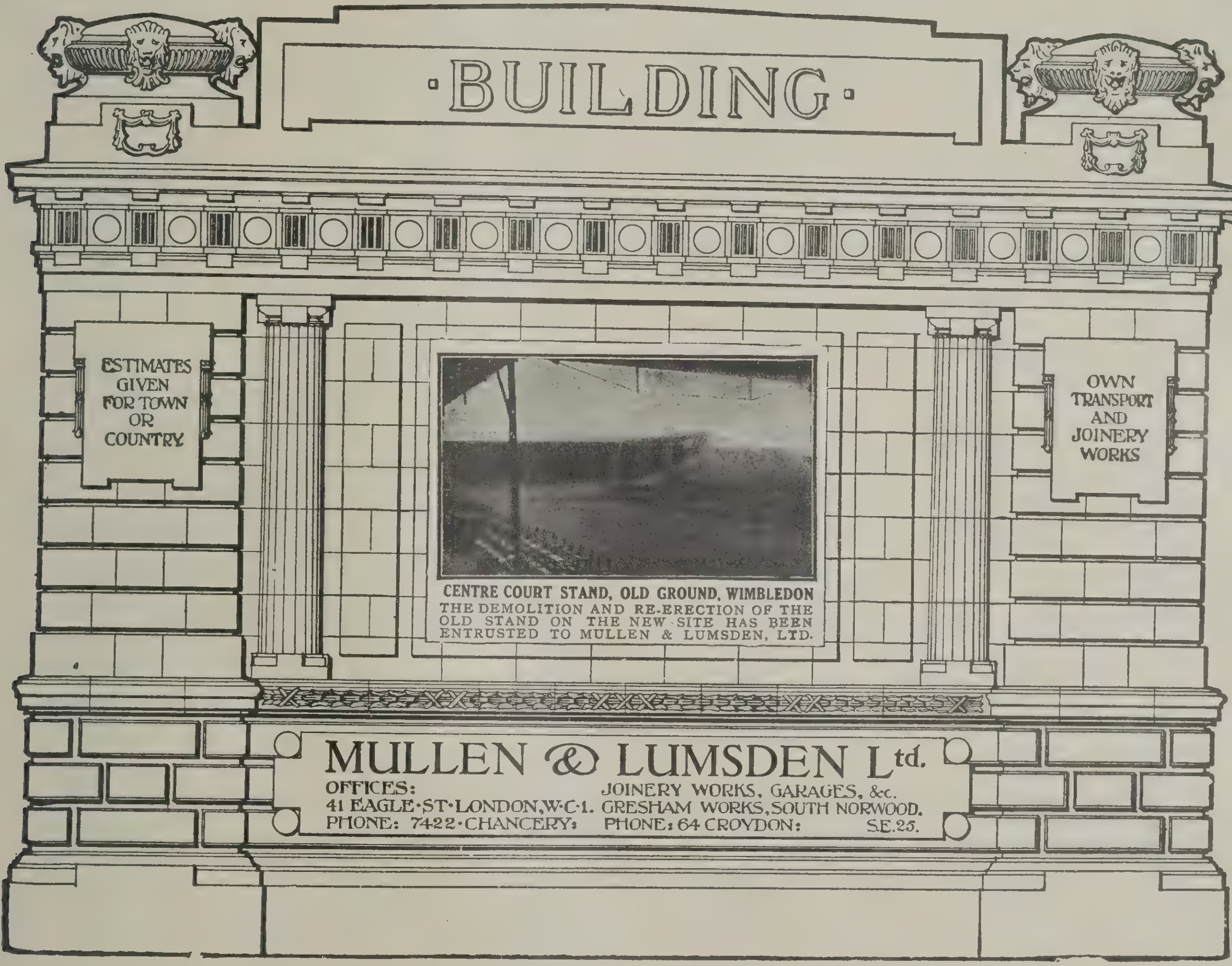
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Variations in Rates of Workmen's Wages since 1914, in London.

CLASS OF WORKMEN AND RATE PAYABLE PER HOUR.

DATE OF VARIATION	MECHANIC	PAINTER	LABOURER	NOTES AS TO RATE PAID TO SPECIAL WORKMEN	
1914–Aug.	11½*d.*	9*d.*	8*d.*	Granite Mason, Fixing Mason, Spindle Machin't, Four Cutter, ditto	*Add* 1*d.* to Mechanic's Rate
1916–July	1/0½	10*d.*	9*d.*		
1917–Apl. 28	1/1½	11*d.*	10*d.*		
1917–Oct. 20	1/3½	1/0¾	11¾*d.*		
1918–Jan. 11	1/3½+12½%	1/0¾+12½%	11¾+12½%	Plumber *previous* to 26 May 1923 *only*	*Add* ½*d.* to Mechanic's Rate
1918–July 27	1/5 +12½%	1/2½+12½%	1/1½+12½%		
1919–Feb. 15	1/9	1/6	1/5	Scaffolders, Timberman, Bender and Fixer of Re-inforcement	*Add* 1*d.* to Labourer's Rate
1919–May 3	1/9	1/8	1/5		
1919 Nov. 15	1/11½	1/10½	1/8		
1920–May 1	2/0½	1/11½	1/9		
1920–May 29	2/4	2/3	2/1		
1921–May 16	2/2	2/1	1/11	For working in waterboots or cold storage or artificial atmosphere or from boats	*Add* 1*d.* to the workman's class rate
1921–July 1	2/2	2/1	1/10		
1921–Aug. 1	2/1	2/0	1/9		
1921–Sept. 1	2/0½	1/11½	1/7½		
1922–Feb. 1	2/0	1/11	1/7		
1922–April 1	1/10	1/9	1/5		
1922–June 1	1/8	1/7	1/3		
1923–May 26	1/7½	1/6½	1/2¾		

All men working on night gangs, *add* 3*d.* per hour.

Prices of Building Material in London.

	ITEM.	CLASS.	COST.	UNIT.
A	Antisyphonage ..	Pipes, iron, 2" ..	3/0	Per yard
	Asbestos ..	Sheeting	1/9	Ditto
	Ditto ..	Ditto, corrugated ..	3/6	Ditto
	Aluminium ..	Paint	25/0	Per gallon
			2" ¾"	
B	Ballast ..	Thames	10/0 13/6	Per yard cube delivered
	Ditto ..	Pit	10/0 13/6	
			½" ¾" 1"	
	Ball valves ..	Brass	5/6 7/9 13/4	each
	Brick ..	Broken	10/6	Per yard cube d/d
	Ditto ..	Hardcore	5/0	
	Bricks ..	Blue, wirecuts ..	145/6	Per 1,000 F.O.R. London
	Ditto ..	Ditto, pressed ..	185/6	
	Ditto ..	Firebricks	223/0	
	Ditto ..	Fixing, breeze ..	80/0	
	Ditto ..	Flettons	53/3	
	Ditto ..	Reds	110/0	
	Ditto ..	Rubbers	244/0	
	Ditto ..	Stocks	92/6	Delivered
	Ditto ..	White	100/0	F.O.R. London
	Ditto	White glazed Stretchers	440/0	Per 1,000 F.O.R. London
	Ditto ..	Ditto headers ..	430/0	
	Ditto	2nd quality	20/0	Per 1,000 less
	Breeze ..	Coke	10/6	Per yard cube d/d
	Ditto ..	Pan	5/6	
C	Cartage ..	Of Bricks, blue ..	12/6	Per 1,000 from rail to job.
	Ditto ..	Of ditto, Flettons ..	9/0	
	Ditto ..	Of ditto, glazed ..	15/0	
	Cement ..	Keenes	105/0	Per ton delivered
	Ditto	Portland	58/0	
	Ditto	White, ditto ..	312/0	
	Copper	Nails	1/4	Per lb.
	Ditto	Sheeting	1/0	Ditto
			½" ¾" 1"	
	Cocks	Bib, brass, stamped ..	4/0 6/0 9/0	Each
	Ditto	Stop, brass, stamped ..	5/0 7/0 10/6	Ditto
D	Drains, stoneware	Pipes and Fittings Standard list ..	−22½%	F.O.R. London
	Ditto ..	Ditto	+7½%	Delivered
			4" 6"	
	Drains, iron ..	Pipes ..	5/6 8/7	Per yard delivered
	Driers ..	For paint	60/0	Per cwt.
E	Enamel ..	White, best	25/0	Ditto, per gallon
F	Felt ..	Roofing	9/7	Delivered, per square
	Fireclay ..	Stourbridge	2/3	Ditto, per cwt.
			1" 1¼"	
	Flooring ..	Deal, P.E.	26/0 33/0	Per square delivered
	Ditto ..	Ditto, G. & T. ..	27/0 34/0	
G	Gas ..	Tubes, Standard list ..	— 50%	Delivered
	Ditto ..	Fittings, ditto ..	— 50%	Ditto
	Ditto ..	Tubes, galvanised ..	—37½%	Ditto
	Glass cut to sizes	Plate not exceeding 1 foot sup.	1/6	Per foot super at Merchant's depot
	Ditto ..	Ditto 3 ditto ..	2/2½	
	Ditto ..	Ditto 5 ditto ..	2/11	
	Ditto ..	Ditto 7 ditto ..	3/4	
	Ditto ..	Ditto 10 ditto ..	3/7	
	Ditto ..	Ditto 25 ditto ..	3/9½	
	Ditto ..	Ditto 100 ditto ..	4/7	
	Ditto ..	Sheet, 15 oz. ..	3⅜*d.*	
	Ditto ..	Ditto 21 oz. ..	5½*d.*	
	Ditto ..	Ditto 26 oz. ..	6⅞*d.*	
	Ditto ..	Rough cast ¼" ..	6¾*d.*	
	Ditto ..	Wired, cast	10½*d.*	
	Ditto ..	Figured, rolled ..	8*d.*	
	Ditto ..	Flemish or Arctic ..	8*d.*	
	Ditto ..	Lead lights in plain sheet squares	2/0	
	Gold leaf ..	English	2/9	Per book
	Gold size	Best	20/0	Per gallon
	Granite ..	Chippings ..	28/0	Delivered, per yard
	Ditto ..	Ditto ..	22/6	Per ton

Prices of Building Material in London—*Continued*

	ITEM.	CLASS.	COST.	UNIT
H	Hire ..	Horse, cart and man ..	25/0	Per day
	Ditto ..	Lorry and driver ..	80/0	Ditto
	Ditto ..	Steam roller .. .. Water cart and men ..	100/0	Ditto
	Ditto ..	Sacks	3*d.*	Each
	Hot water ..	Tubes, Standard list	— 45%	Delivered
	Ditto ..	Fittings, ditto ..	— 45%	Ditto
	Ditto ..	Tubes, galvanised ..	— 31¼%	Ditto
J	Joists ..	Steel, rolled	260/0	Per ton delivered
	Ditto ..	Wood, soft, 9"×3" ..	3/9	Per foot cube delivered
	Ditto ..	Ditto, ditto, 7"×2½"	3/2	
	Ditto ..	Ditto, ditto, 6"×2" ..	3/0	
K	Knotting ..	.. .. ..	35/0	Per gallon
L	Lathing ..	Metal	1/0	Per yard
	Ditto ..	Wood, sawn	3/9	Per bundle
	Lead ..	Sheet	35/0	Per cwt.
	Ditto ..	Pipe	35/6	Ditto
	Ditto ..	Soil	38/0	Ditto
	Ditto ..	White	58/9	Ditto
	Lime ..	Grey stone	51/3	Per ton
	Ditto ..	Blue lias	58/6	Ditto
M	Mahogany ..	Honduras	19/0	Ft. cube
	Ditto ..	Cuba	26/0	Ditto
			⅝" ¾" 1"	
	Matching ..	Deal, T. G ..	18/0 21/0 28/0	Per square delivered
N	Nails ..	Brads, floor	22/9	Per cwt. delivered
	Ditto ..	Cut clasp	23/0	
	Ditto ..	Lath	31/0	
	Ditto ..	Wire, oval	26/0	
O	Oak ..	American	14/0	Per foot cube delivered
	Ditto ..	English	13/0	
	Ditto ..	European	21/0	
	Ditto ..	Japanese	20/0	
	Oil ..	Linseed, boiled ..	4/5	Per gall.
	Ditto ..	Ditto, raw	4/2	ditto
P	Paint ..	Mixed	80/0	Per cwt. d/d
			2" 3"	
	Partitions ..	Breeze	2/0 2/7	Per yard sup. d/d
	Plaster ..	Paris, coarse	70/0	Per ton delivered
	Ditto ..	Sirapite ,, ...	70/0	
	Ditto ..	Slabs, ceiling	2/3	Per yard
	Putty ..	Glazing	18/0	Per cwt.
			5" 6"	
R	Rain water ..	Gutters, O.G. ..	2/2 2/8	Per yard d/d
			3" 4"	
	Ditto ..	Pipes, round	2/2 3/0	
	Roofing, iron ..	Corrugated, galvd. ..	21/0	Per cwt.
S	Sand ..	Ordinary	13/0	Per yard cube d/d
	Ditto ..	Washed	14/0	
			No. 8 No. 10	
	Sash ..	Lines, flax	3/8 4/6	Per knot
	Ditto ..	Weights, iron ..	12/0	Per cwt.
	Ditto ..	Ditto, lead	40/0	Ditto
	Size ..	Best	5/6	Per fkn.
	Slates ..	20"×10", Welsh ..	430/0	Per 1,000
	Ditto ..	14"×9", ditto	175/0	Ditto
	Soil pipes	L.C.C., iron, 4" ..	5/1	Per yard
	Solder ..	Plumbers'	1/0	Per lb.
	Steam ..	Tubes, Standard list ..	—40%	Delivered
	Ditto ..	Fittings, ditto ..	—40%	Ditto
	Ditto ..	Tubes, galvanised ..	—25%	Ditto
	Steel ..	Angles	14/6	Per cwt.
	Ditto ..	Bolts	36/0	Ditto
	Ditto ..	Joist	13/0	Ditto
	Ditto ..	Stanchions	17/0	Ditto
	Stone ..	Bath	3/9	Per foot cube d/d
	Ditto ..	Portland	5/3	
	Ditto ..	York	6/0	
T	Tar ..	Stockholm	1/0	Per gallon
	Teak ..	Eng.	12/0	Per foot cube d/d
	Ditto ..	Moulmein	19/0	
	Terebine ..	.. .. ..	13/6	Per gallon
			2" 4"	
	Thimbles ..	Brass, Plumbers' ..	2/0 3/8	Each
	Tiles ..	Plain, roofing ..	120/0	Per 1,000
	Ditto ..	6"×6", white glazed ..	12/6	Per yard
	Timber ..	Deal, joinery	5/9	Per foot cube d/d
	Ditto ..	Ditto, Carpenters'	3/6	
	Ditto ..	Slating battens ..	3/0	Per 100 feet
			1½" 2"	
	Traps ..	Cast, lead, S.	3/0 4/3	Each
	Ditto ..	Ditto, P.	2/4 3/5	Ditto
	Turpentine ..		9/6	Per gallon
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U	Unions ..	Plumbers'	1/4 2/0 3/0	Each
			½" ¾" 1"	
V	Valves ..	Ball	5/6 7/9 13/4	Each
	Varnish ..	Hard, oak	15/0	Per gallon
	Ditto ..	Copal	17/0	Ditto
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W	Whiting ..	Gilders'	3/0	Per cwt.
	Wire ..	Guards, galvd. ..	2/6	Per foot super
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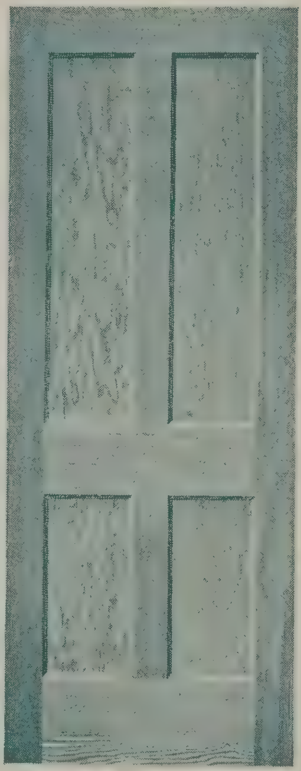

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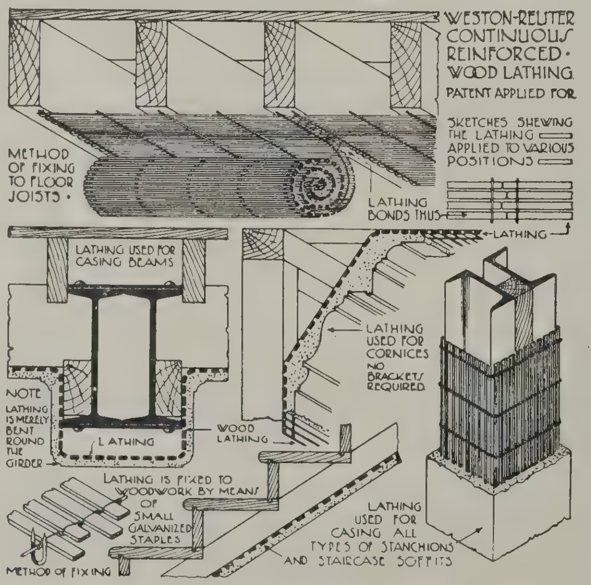
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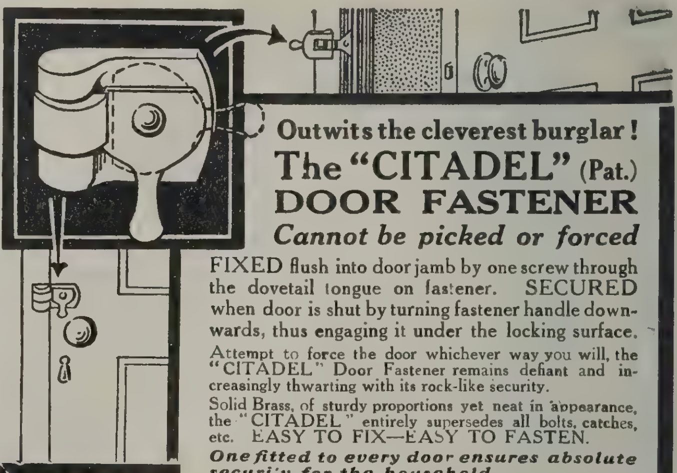

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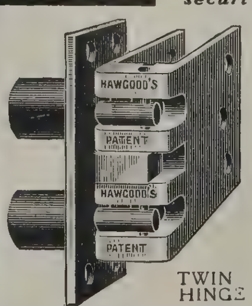

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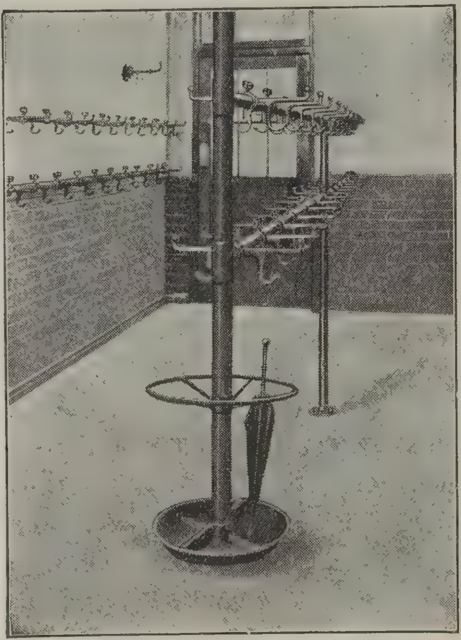

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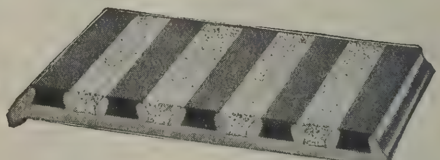

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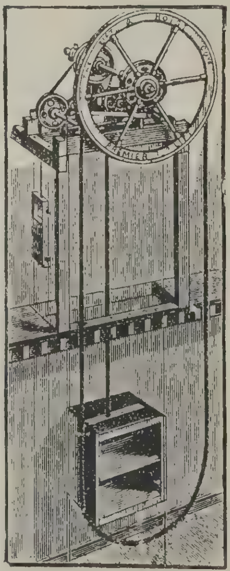

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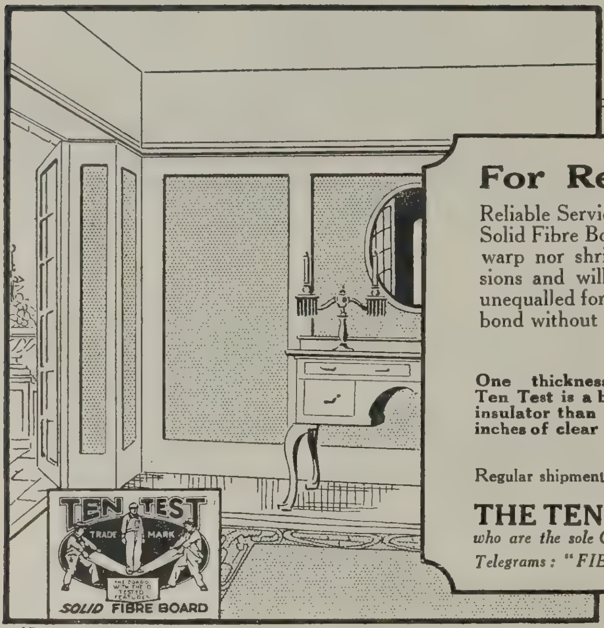

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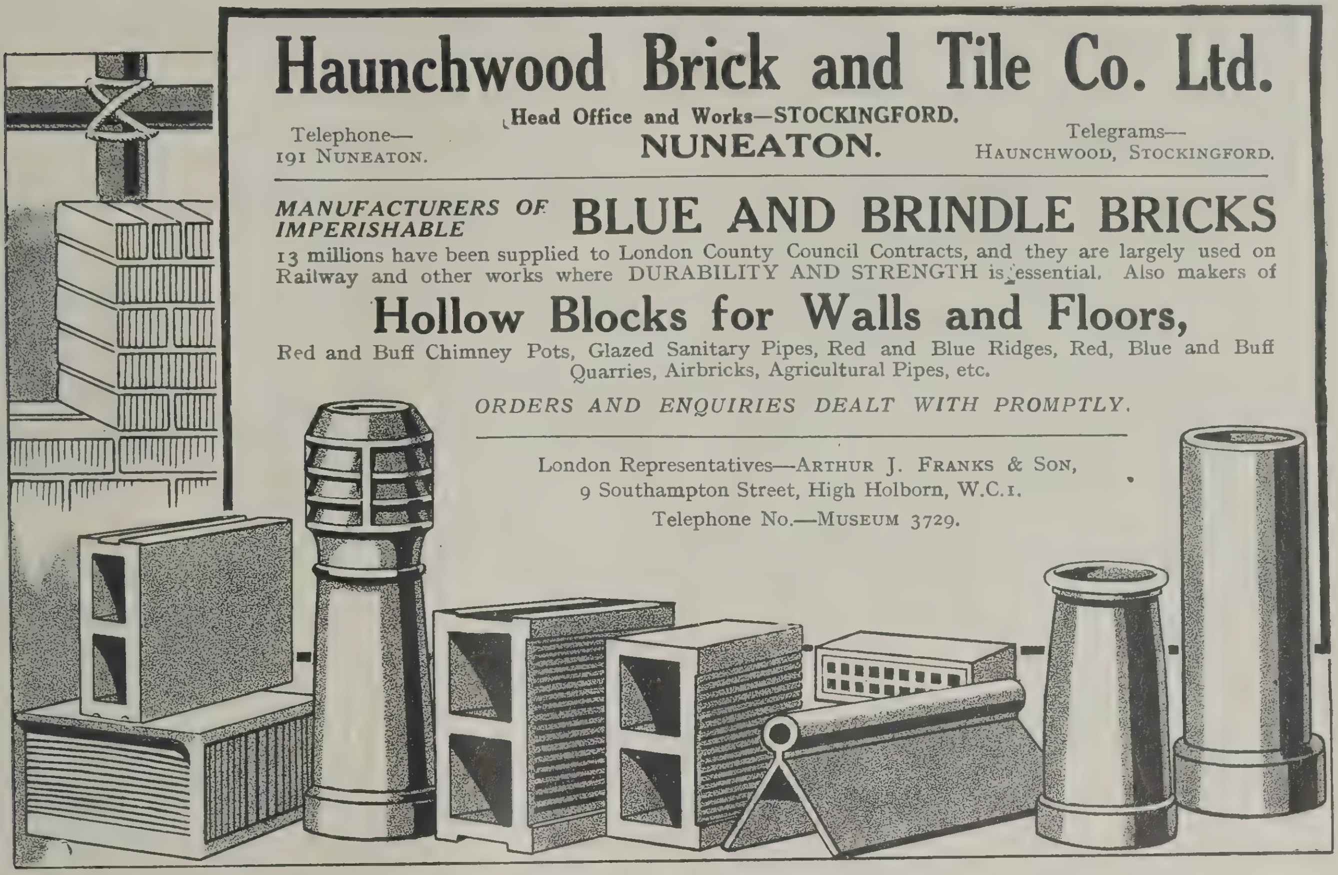

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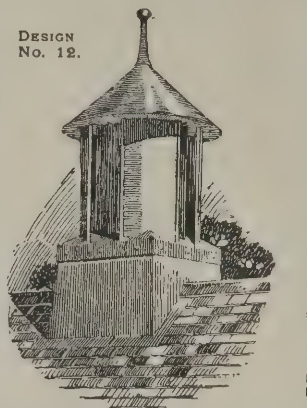
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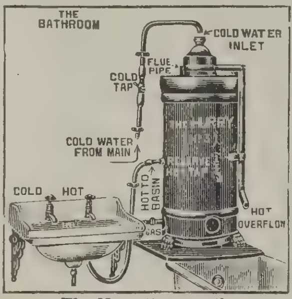

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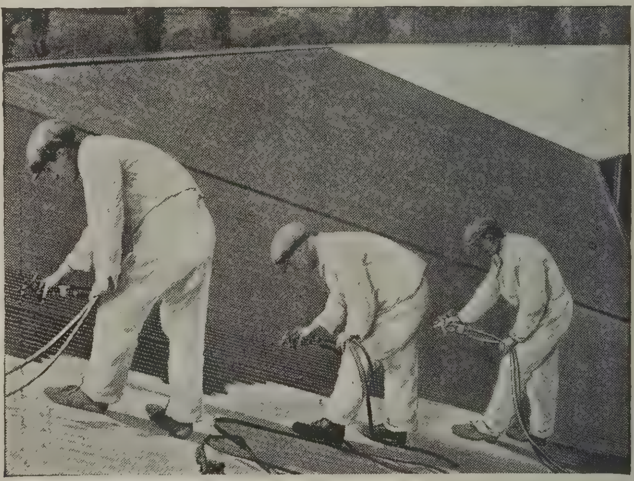

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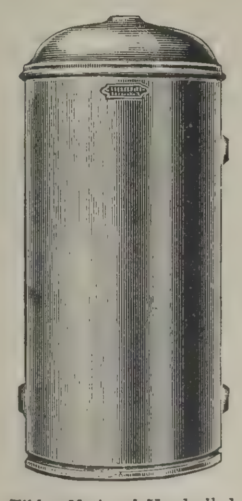
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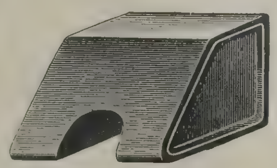
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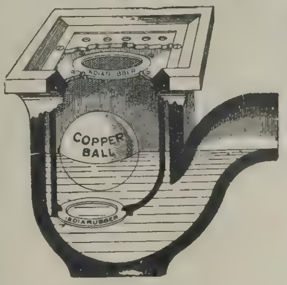

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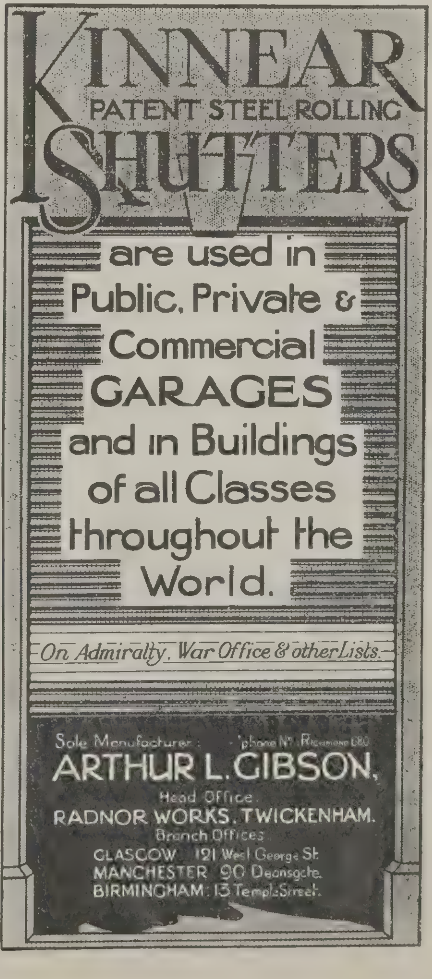

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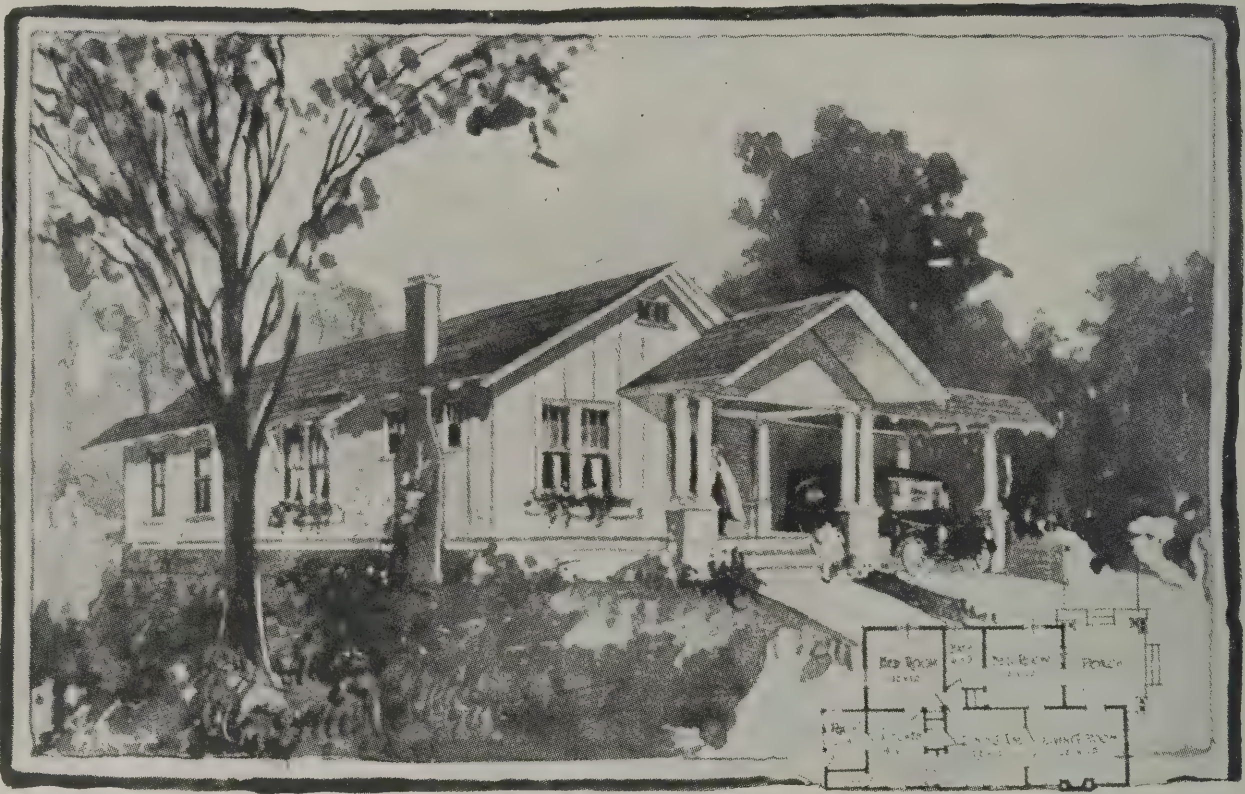

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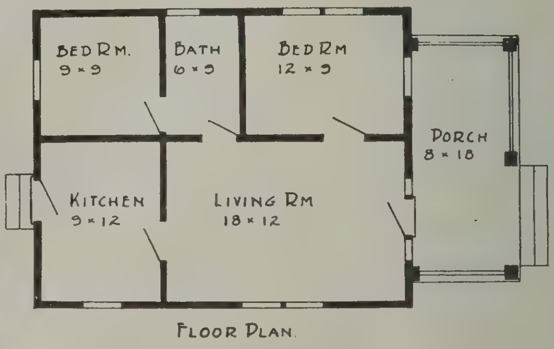

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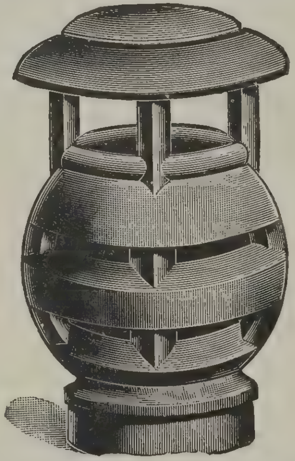

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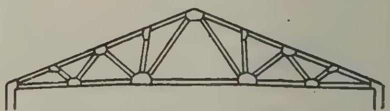

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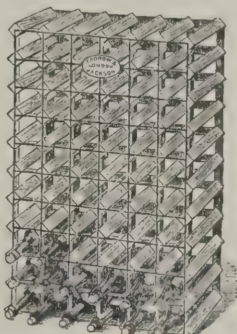

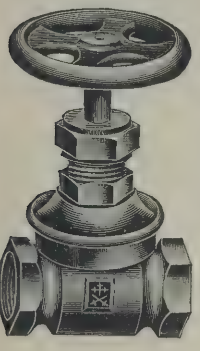

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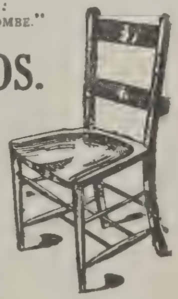

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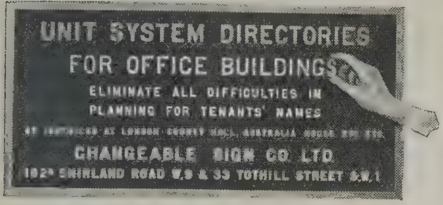

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COMPETITIONS.

SLOUGH URBAN DISTRICT COUNCIL.

NOTICE TO ARCHITECTS.

THE Slough Urban District Council invite Architects who are willing to join in a limited COMPETITION for the lay-out and development of a site providing for the erection of new Council Offices, Shops, etc., to send in their names to the undersigned by 12 o'clock noon on Thursday, July 5, 1923, together with particulars of their experience, with illustrations of their work or such other information as the candidate may think likely to advance his claim to be admitted to the Competition.

It is intended to invite a limited number of selected Architects to join in the Competition, each competitor to receive a specified sum for the preparation of his design. such design to remain the property of the Council.

The Council do not bind themselves to execute any of the designs submitted.

F. R. DUXBURY,
Clerk.

Council Offices, Slough.
June 18, 1923.

CITY OF HULL.

THE Lord Mayor and Corporation of the City of Hull invite DESIGNS for the erection of a Cenotaph on a site in Paragon Square belonging to the Corporation.

Conditions of the Competition together with a plan of the site will be supplied by the Town Clerk after June 18th, on receipt of a cheque for one guinea, which deposit will be returned to competitors on receipt of a bona-fide design.

The estimated cost of the work amounts to £4,000, and premiums of £150, £75, and £50 are offered for the designs placed first, second and third respectively. The assessor is Mr. Stanley Hamp, F.R.I.B.A., whose decision will be final.

COMPETITIVE PLANS are invited for a School to be erected in Twickenham seating 5/600 children. Frontage 40 feet, windows on all sides. Closing date June 14. HOWARD, Claremont Road, Twickenham.

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LONDON FIRM of Distributors with sound connection among ARCHITECTS, BUILDERS, BOROUGH SURVEYORS, etc., invite correspondence from Manufacturers with a view to Sole Agency for TOOLS, MATERIALS or FITTINGS. Replies to Box 77, "The Architect."

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TENDERS.

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TO BUILDERS.

THE Commissioners of His Majesty's Works, etc., are prepared to receive TENDERS before 11 a.m. on Tuesday, July 17, 1923, for Superstructure of the new Male Block, additions to Laundry, erection of Cottages and Drainage Work at the RAMPTON STATE INSTITUTION.

Drawings, Specification and a copy of the Conditions and Form of Contract may be seen on application to the Clerk of Works, at the Site.

Bills of Quantities and Forms of Tender may be obtained from the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W.1, on payment of one guinea. (Cheques payable to the Secretary, H.M. Office of Works.) The sums so paid will be returned to those persons who send in Tenders in conformity with the conditions.

EPSOM URBAN DISTRICT COUNCIL.

EPSOM WAR MEMORIAL.

THE above Council invites TENDERS for the supplying of material and the erection of a Granite Wall to take names and railings around the War Memorial in accordance with Drawings and Specifications prepared by Mr. W. H. Hatchard-Smith, A.R.I.B.A.

Drawings and Specifications can be seen at the office of Messrs. J. Hatchard-Smith & Son, F.R.I.B.A., 11, Haymarket, London, S.W.1, on and after June 21.

Sealed tenders endorsed "War Memorial" are to be delivered at my office, No. 37, Church Street, Epsom, not later than noon on Saturday, July 7.

The Contractors may, if so desired, tender separately for (*a*) the supply of materials, and (*b*) the erection.

The Council do not bind themselves to accept the lowest or any tender.

E. G. WILSON.
Clerk to the Council.

37, Church Street, Epsom.

BOROUGH OF ACCRINGTON.

PROPOSED HOUSING SCHEME FOR THE ERECTION OF 102 HOUSES ON THE LANESIDE ESTATE. (BLOCKS A AND B.)

TO BUILDERS AND CONTRACTORS.

THE Housing Committee of the Corporation is prepared to RECEIVE TENDERS for the ERECTION and COMPLETION of PART of the above DWELLING HOUSES, comprised in Blocks A and B. Printed particulars, consisting of form of Tender, Contract, general Conditions, and Specifications, with Plans and Drawings, may be obtained on application to the undersigned on payment of 3 guineas, which will be returned on the receipt of a bona fide Tender, together with the Specifications and Drawings.

Sealed Tenders, endorsed "Tender for Houses," to be delivered to the Town Clerk not later than Saturday, June 30, 1923.

The lowest or any Tender will not necessarily be accepted.

WILLIAM J. NEWTON, F.S.Arc., Assoc.M.Inst.C.E.,
Architect, Town Hall, Accrington.
June 9, 1923.

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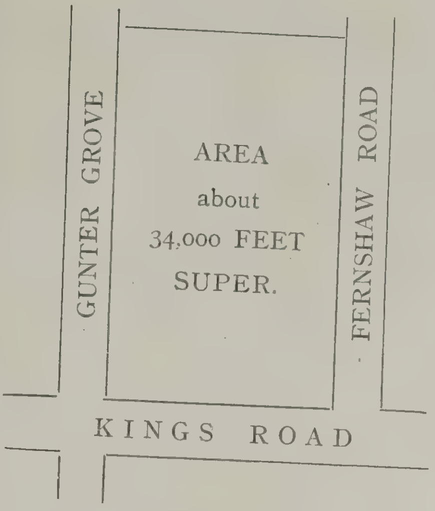

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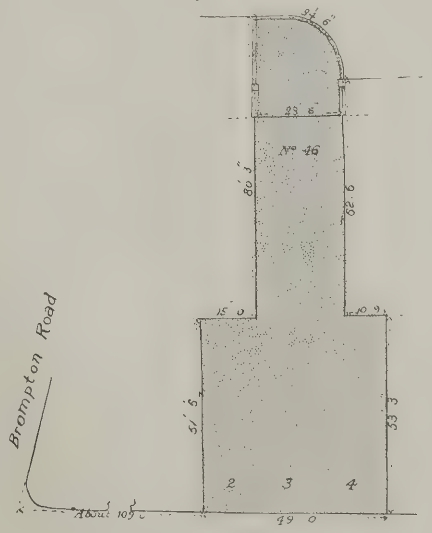

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Continued from page 35.

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Ex-Officer. Age 32. 5 years' war service. Married. Sound experience building trade. Knowledge of all branches. Desires post as Builder's Assistant or Clerk of Works. 3399/22

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Architect's Draughtsman. Costing Clerk or Storekeeper. Age 33. Married. 8½ years (including 4 years' articles) as Architect's Assistant, supervising works, costing clerk and draughtsman, etc. Resident and prefer appointment near Cardiff. Willing to go abroad. 251/23/4

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Lieut. Age 23. Single. 3 years' war service. Educated King Edward School, Bath. 2½ years' articles, Architect and Surveyor. Requires appointment with Surveyor, Land Agents. 96091/8

Clerk of Works, Assistant Draughtsman, etc. Age 26. Single. Served apprenticeship Carpenter and Joiner, and in addition to considerable experience as above in R.E. served 2 years' full-time course in Architecture and building construction at Newport Technical College. Keen, practical man; fluent Welsh. Resident Newport, Mon. 262/23/4

Clerk of Works, Builders' Clerk or Draughtsman. Age 30. Single. 1919/20 15 months' course in building construction at Newport Technical College. Recently held appointment Clerk of Works to a County Council. Resident Newport, Mon. 261/23/4

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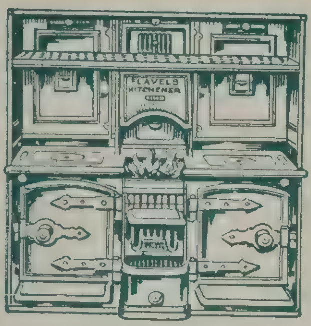

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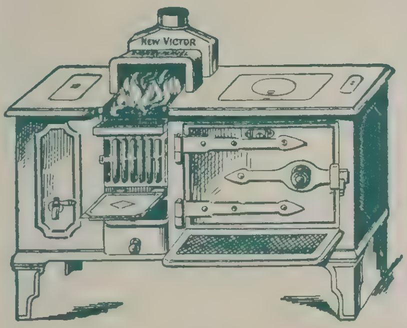

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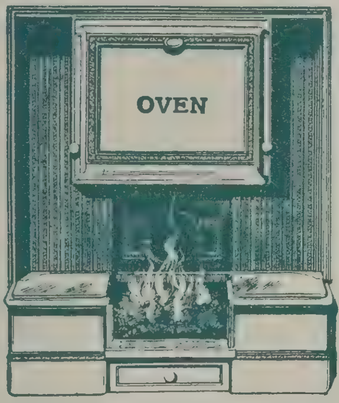

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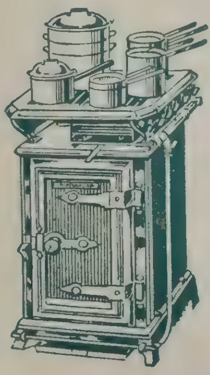

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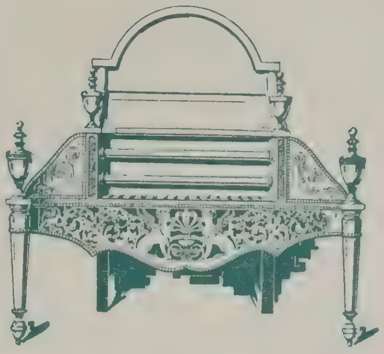

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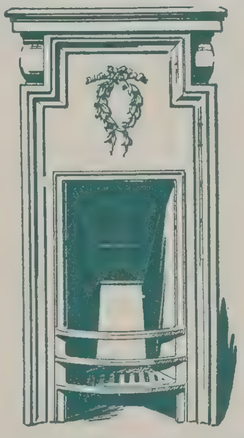

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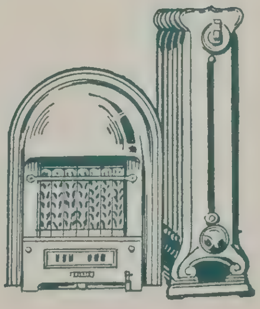

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